LAW ASSOCIATION OF PHILADELPHIA.

(14,243.)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1893.

No. 234.

THOMAS D. OLIN AND EDWIN D. OLIN, APPELLANTS,

vs.

HENRY TIMKEN.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF OHIO.

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1 THE UNITED STATES OF AMERICA, } 88:
Southern District of Ohio, Western Division, }

At a stated term of the circuit court of the United States of America within and for the western division of the southern district of Ohio, in the sixth judicial circuit of the United States of America, begun and had in the court-rooms, at the city of Cincinnati, Ohio, on the first Tuesday of October, being also the second day of that month, in the year of our Lord one thousand eight hundred and eighty-nine, and of the Independence of the United States of America the one hundred and thirteenth—present, the Honorable George R. Sage, district judge—among the proceedings had were the following, to wit:

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity. # 3853.

Be it remembered that heretofore, to wit, on the 3rd day of February, in the year of our Lord one thousand eight hundred and eighty-six, came the complainant, by his solicitors, and filed
2 in the clerk's office of said court his certain bill of complaint against the defendants herein, said bill being clothed in the words and figures following, to wit:

Bill of Complaint.

Circuit Court of the United States for the Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Respondents. } In Equity. No. 3853.

Bill of complaint.

To the honorable the judges of the circuit court of the United States for the southern district of Ohio, western division:

Your orator, Henry Timken, a citizen of the State of Missouri, and residing at the city of St. Louis, in said State, brings this his bill of complaint against the above-named respondents, to wit: Thomas D. Olin, a citizen of the State of Indiana, and residing at the city of Terre Haute, in said State of Indiana, and Edwin D. Olin, a citizen of the State of Ohio, and residing at Avondale, in the county of Hamilton, and State of Ohio, the said respondents being
3 associated together and doing business in the city of Cincinnati, county of Hamilton, State of Ohio, under the firm name

and style of "T. D. Olin & Co.," and thereupon your orator complains and says:

That he, the said Henry Timken, is the original and first inventor of an improved vehicle spring, fully described in the letters patent hereinafter mentioned, and which had not been known or used before his said invention, and which was not at the time of his application for a patent, as hereinafter mentioned, in public use, or on sale with his consent or allowance.

And your orator, on information and belief, further shows unto your honors that he, the said Henry Timken, being so, as aforesaid, the first inventor and discoverer of said improvement, and being also a citizen of the United States, did, on November 27, 1877, upon due application therefor, obtain letters patent of the United States for said invention, in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents of the United States, bearing date the day and year last aforesaid, and numbered 197,689, whereby there was granted and secured to your orator, the said Henry Timken, his heirs, administrators, or assigns, or intended so to be, for the term of seventeen years, from and after the date of said letters patent, the full exclusive right and liberty of making, constructing, using and vending to others to be used, the said invention and improvement, as set forth in said letters patent, which are now of record in the Patent Office of the United States, and by virtue whereof your orator became and now is the sole owner of all the rights and privileges granted and secured, or intended to be granted and secured, in and by the said letters patent, as by said letters patent, or a duly certified copy thereof, here in court to be produced, will fully and at large appear.

And your orator further shows unto your honors, that since he became the owner thereof as aforesaid, he has actively and
4 largely engaged in the manufacture and sale of the invention, secured by said letters patent above described and pleaded, and has expended and is now expending much time and money in introducing and putting on the market said invention, and bringing it into favor with dealers, manufacturers and users of vehicles throughout the United States of America and the territories thereof, and in making it useful to the public, and had, prior to the alleged infringements, hereinafter pleaded, and has now, a large and remunerative trade and business with said manufacturers and dealers in said invention, secured to him by virtue of said patent, the emoluments of which had exclusively inured to him and his benefit, until the infringement of his rights by the respondents herein.

And your orator further shows that said invention has been, and is of great benefit and advantage; and that great numbers of vehicle springs embodying the said invention, have been made and sold by your orator, and his licensees, to the great advantage of the public, and that the public have generally acknowledged and acquiesced in the aforesaid rights of your orator.

And your orator further shows, that prior to the infringement

hereinafter complained of, he was receiving from his licensees, a license fee of — dollars per set of springs manufactured and sold, and collected the same without hindrance or delay, or without dissatisfaction on the part of those undertaking and agreeing to pay the same; but respondents have received much larger profits and greatly damaged him by selling an inferior article, and your orator believes that he will realize and receive large gains and profits therefrom, if infringements by said respondents and their confederates shall be prevented.

Yet the said respondents, well knowing the premises, and the rights secured to your orator aforesaid, but contriving to injure your orator, and to deprive him of the benefits and advantages which might, and otherwise would, accrue unto him from
5 said invention, after the issuing of the letters patent aforesaid, and before the commencement of this suit, did, as your orator is informed and believes, without the license or allowance, and against the will of your orator, and in violation of his rights, and — infringements of the aforesaid letters patent, unlawfully and wrongfully, and in defiance of the rights of your orator, make, *contract*, use, and vend to others to be used, the said invention; and did make, construct, use, and vend to others to be used, vehicle springs, made according to, and employing and containing said invention, and that they, said respondents, still continue so to do, and that they are threatening to make the aforesaid vehicle springs in large quantities, and to supply the market therewith, and to sell the same.

All in defiance of the rights acquired by and secured to your orator as aforesaid, and to his great and irreparable loss and injury, and by which he has been and still is being deprived of great gains and profit which he might and otherwise would have obtained, but which have been received and enjoyed, and are being received and enjoyed, by the said respondents, by and through their aforesaid unlawful acts and doings.

And your orator further shows unto your honors, on information and belief, that said respondents have sold large quantities of said vehicle springs and have a large quantity on hand which they are offering for sale, and they have made and realized large profits and advantages therefrom; but to what extent, and how much exactly, your orator does not know, and prays a discovery thereof.

And your orator says that the use of the said invention by said respondents, and their preparation for, and avowed determination to continue the same, and their other aforesaid unlawful acts, in disregard and defiance of the rights of your orator, have the effect to and do encourage and induce others to venture to infringe said patent in disregard of your orator's rights.

And your orator further shows unto your honors that he has
6 caused notice to be given to said respondents of said infringements, and of the rights of your orator in the premises, and has requested them to desist and refrain therefrom; but that they have disregarded said notice, and refused to desist from said in-

fringements and still continue to make and sell said vehicle springs, as aforesaid.

And forasmuch as your orator can have no adequate relief except in this court, to the end, therefore, that the said respondents may, if they can, show why your orator should not have the relief hereby prayed, and may upon their corporal oath, according to their best and utmost knowledge, remembrance, information and belief, full, true, direct and perfect answer make to the premises, and to all the several matters hereinbefore stated and charged, as fully and particularly as if severally and separately interrogated as to each and every of said matters, and may be compelled to account for and pay to your orator the profits by them acquired, and the damages suffered by your orator from the aforesaid unlawful acts.

And your orator further prays, that the respondents be required to disclose whether they are carrying on business as a firm or a corporation; and if as a firm, is it T. D. Olin & Co., or what is the name of the firm, and how long they have so carried on said business under said name, and under what name of firm they manufactured, used or sold said invention, and when and to whom they have sold said invention, and when they first commenced to make and vend the same.

And your orator prays that said respondents, their servants, agents, attorneys, and workmen, and each and every one of them, may be restrained and enjoined provisionally and perpetually by the order and injunction of this honorable court, from directly or indirectly making, constructing, using, vending, delivering, working or putting into practice, operation or use, or in anywise counterfeiting or imitating the said invention, or any part thereof, or any ve-
7 hicle spring made in accordance therewith, or like or similar to those which have been heretofore made; and that the said respondents may be decreed to pay the costs of this suit; and that damages to the amount of twenty-five thousand dollars be assessed against them, as by statute provided, and be adjudged to this complainant against them, the respondents, for such violation of the said exclusive rights, and for their infringing; and that the amount of damages be tripled according to law; and that your orator may have such further relief, and such other relief, as to this honorable court shall seem meet, and as shall be agreeable to equity.

May it please your honors to grant unto your orator the writ of injunction, as well provisional as perpetual, issuing out of and under the seal of this honorable court, commanding, enjoining and restraining the said respondents, Thomas D. Olin and Edwin D. Olin, and each of them, and each of their servants, agents, attorneys and workmen, and each and every one of them, as is hereinbefore in that behalf prayed.

May it please your honors to grant unto your orator the writ of subpœna issuing out of and under the seal of this honorable court, directed to the said respondents, Thomas D. Olin and Edwin D. Olin, commanding them by a certain day, and under a certain penalty, to be and appear in this honorable court, then and there to

answer the premises, and to stand to and abide such order and decree as may be made against them.

And your orator will ever pray, etc.

(Signed) HENRY TIMKEN.

WM. HUBBELL FISHER, Cincinnati, Ohio,
WM. M. ECCLES, St. Louis, Mo.,
Solicitors and of Counsel.

8 UNITED STATES OF AMERICA, }
Eastern District of Missouri, } *ss:*

On this thirtieth day of January, A. D. 1886, before me personally appeared Henry Timken, the above-named complainant, who being by me first duly sworn, deposes and says that he has read the foregoing bill of complaint subscribed by him and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters therein stated on information and belief, and as to those matters he believes it to be true.

(Signed) HENRY TIMKEN.

Sworn to before me and subscribed in my presence, this thirtieth day of January, A. D. 1886.

[SEAL.] C. D. GREEN, JR.,
U. S. Commissioner.

And afterwards, to wit, on the same day, there was filed in the clerk's office of said court the following præcipe, clothed in the words and figures following, to wit:

Præcipe.

United States Circuit Court, Southern District of Ohio.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN. } No. —

To B. R. Cowen, clerk of said court:

Please issue subpœna for Thomas D. Olin and Edward D. Olin (composing firm of T. D. Olin & Co.).

WM. HUBBELL FISHER,
WM. M. ECCLOS,
Att'ys for Comp'l.

9 And afterwards, to wit, on the same day, there was issued out of the clerk's office of said court our certain subpœna directed to the marshal of the district and against the defendants herein. Said subpœna is clothed in the words and figures following, to wit:

Subpœna in Chancery.

UNITED STATES OF AMERICA, *Southern District of Ohio.* } ss:

The President of the United States of America to the marshal of the southern district of Ohio, Greeting:

You are hereby commanded to summon Thomas D. Olin, a citizen of and resident in the State of Indiana, and Edwin D. Olin, citizen of and resident in the State of Ohio, partners under the firm name and style of T. D. Olin & Co., if they be found in your district, to be and appear in the circuit court of the United States for the southern district of Ohio aforesaid, at Cincinnati, on the first Monday in April next, to answer a certain bill in chancery filed and exhibited in said court against them by Henry Timken, citizen of and resident in the State of Missouri.

Hereof you are not to fail, under the penalty of the law thence ensuing; and have you then and there this writ.

10 Witness the Honorable Morrison R. Waite, Chief Justice of the United States, this 3rd day of February, A. D. 1886, and in the 110th year of the Independence of the United States of America.

Attest:

[SEAL.] B. R. COWEN, *Clerk.*

MEMORANDUM.—The said defendants are required to enter their appearance in this suit in the clerk's office of said court on or before the first Monday of March, 1886; otherwise the said bill may be taken *pro confesso.*

B. R. COWEN, *Clerk.*

(Endorsed:) $50.00 deposited as security for all costs for which the plaintiff may be liable in this suit.

And afterwards, to wit, on the 4th day of February, A. D. 1886, the following appearance was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Appearance.

11 United States Circuit Court, Southern District of Ohio.

H. TIMKEN
vs.
T. D. OLIN *et al.* } # 3853.

To B. R. Cowen, clerk of said court:

Please enter my appearance as solicitor for defendants in above-entitled cause.

GEO. J. MURRAY,
Att'y for T. D. Olin and E. D. Olin.

And afterwards, to wit, on the 11th day of February, A. D. 1886, the followance appearance was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Appearance.

U. S. Circuit Court, S. D. Ohio, W. D.

HENRY TIMMEN
vs.
T. D. OLIN *et al.* } In Equity.

The clerk will please enter my appearance in above-entitled case as of counsel on behalf of defendants.

WM. H. DOOLITTLE,
916 *F St., Washington, D. C.*

Feb'y 9, 1886.

12 And afterwards, to wit, on the 20th day of February, A. D. 1886, came the marshal of the district aforesaid, to whom the above subpœna was in form directed, and returned the same into the clerk's office of said court, with his proceedings had thereon endorsed in the words and figures following, to wit:

Marshal's Return.

Received this writ at Cincinnati, Ohio, on the 3rd day of Feb., A. D. 1886, and on the 11th day of Feb., 1886, I served the within-named Thomas D. Olin by delivering to him personally a true copy of this writ, — all the endorsements thereon, and on the 16th day of Feb., 1886, I served the within-named Edwin D. Olin by delivering to him personally a true copy of this writ, with all the endorsements thereon, both service- made in the city of Cincinnati.

Fees, total, $5.12.

H. C. URNER,
U. S. Marshal,
By C. A. COSTELLO, *Deputy.*

And afterwards, to wit, on the 5th day of April, A. D. 1886, the following answer was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Answer.

13 Circuit Court of the United States for the Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composin- the Firm of T. D. Olin & Co. } In Equity. No. 3853.

Answer of Defendants.

The answer of Thomas D. Olin and Edwin D. Olin, doing business at Cincinnati, Ohio, under the firm name and style of T. D. Olin & Co.

These defendants now, and at all times hereafter, saving and reserving unto themselves all and all manner of benefit and advantage of exception that can or may be had or taken to the many errors, uncertainties, insufficiencies and imperfections in the said bill of complaint, for answer thereto or unto so much thereof as they are advised is material or necessary for them to make answer unto, answering, say:

They admit that they are a partnership and that the members of said partnership are the defendants above named.

And the defendants, further answering, say:

First. They admit, on information and belief, that letters
14 patent of the United States, number 197,689 were, on the 27th day of November, A. D. 1877, granted unto Henry Timken, for an alleged improvement in carriage springs alleged to have been made by Henry Timken, but whether the said Henry Timken made application in due form of law for said letters patent, or whether he complied with all the requirements of the statutes in such cases made and provided, this defendant does not know and is not informed, and, therefore, leaves said complainant to make such proof thereof as he may be advised.

Second. And these defendants, further answering, on information and belief, deny that said alleged improvements had not been known or used before the alleged invention thereof by said Henry Timken, or that said alleged improvements had not been for more than two years at the time of his application for a patent therefor in public use or on sale.

Third. And these defendants, further answering, deny that the said alleged invention is useful, or that it is an improvement and advance in this art. But, on the contrary thereof, on information and belief, these defendants aver and charge the fact to be, that the said letters patent are null and void for want of utility, and also for a further and separate reason, for want of invention in the said Henry Timken.

Fourth. And these defendants, further answering, on information and belief, say, that for the purpose of deceiving the public the de-

scription and specification filed by the said Henry Timken in the Patent Office as part of the alleged application for said letters patent was made to contain less than the whole truth relative to his said alleged invention or discovery, and the same is null and void by reason thereof.

Fifth. And these defendants, further answering, say, that they do not know and are not informed, save and except by said bill of complaint, whether said complainant ever applied the said alleged improvement to practical use, or at any time the complainant has
15 been in the undisturbed or any possession, use or enjoyment, of any privileges supposed to be secured by said letters patent, or whether said complainant has received any profits therefrom, as alleged in said bill of complaint. And, therefore, these defendants neither admit or deny the same, but leave the said complainant to make such proof as to these several matters as he may be advised.

Sixth. And these defendants, further answering, deny that they have at any time and in any place infringed upon any legal or equitable right or rights of complainant herein. And further deny that they have ever at any time and in any place made, used or sold any carriage springs, or any other articles in infringement of said letters patent on which this suit is brought, or the claim thereof.

Seventh. And these defendants, further answering, say, that in September, 1882, T. D. Olin commenced the business alone, and continued to carry on the business alone until the spring of 1883, under the name and style of T. D. Olin, sole agent of the Stickle spring. In the spring of 1883, H. S. Richardson and F. L. Shinkle joined with T. D. Olin as equal partners, under the firm name of T. D. Olin & Co. In November, 1883, E. D. Olin purchased the interest of T. S. Shinkle, and took his place in the firm of T. D. Olin & Co., and in February, 1884, T. D. Olin and E. D. Olin, defendants herein, purchased the interest of H. S. Richardson in the business, which was carried on from that time to the present time under the firm name of T. D. Olin & Co., with the present parties, T. D. Olin and E. D. Olin, as equal partners. Up to the time H. S. Richardson retired from the firm, the firm of T. D. Olin & Co. were located and did business at Terre Haute, Ind.; since February, 1884, the business has been carried on at Cincinnati, O., and is still so carried on. And the said firm sell the springs made by them to carriage-makers generally throughout the United States and territories thereof.

16 Eighth. And these defendants, further answering, aver and charge the fact to be that the said Henry Timken was not the original and first inventor of the said alleged improvements in carriage springs described and claimed in said letters patent No. 197,689 of November 27, 1877, but on the contrary thereof, that the same thing in all material and essential features, and the same principle and combination, were previous to said alleged invention of Henry Timken fully described and set forth in the following publi-

cations and letters patent, long prior to the alleged or any invention or discovery thereof by the said Henry Timken, to wit:

The letters patent of the United States hereinafter enumerated, as follows:

No. 8105 to L. Bissell, dated May 20, 1851.
No. 34549 to G. W. La Barr, dated February 25, 1862.
No. 63668 to Anson K. Stone, dated April 9, 1867.
No. 63669 to Anson K. Stone, dated April 9, 1867.
No. 108,649 to Sidney Steward, dated October 25, 1870.
No. 15126 to J. V. Fiester, dated June 17, 1856.
No. 7085 to M. G. Hubbard, dated February 12, 1850.
No. 8244 to M. G. Hubbard, dated July 22, 1851.
No. 12890 to M. G. Hubbard, dated May 15, 1855.
No. 107,386 to G. W. Kenan, dated September 13, 1870.
No. 154,749 to C. L. Fisher, dated September 8, 1874.
No. 169,808 to H. A. Hight, Sr., dated November 9, 1875.
No. 151,876 to H. A. Hight, Sr., dated June 9, 1874.
No. 171,757 to W. F. Baird, dated January 4, 1876.
No. 139,348 to F. H. Wood, dated May 27, 1873.
No. 87675 to C. H. Hudson, dated March 9, 1869.
No. 84446 to W. F. Vernier, dated November 24, 1868.
No. 196,536 to M. Newton, dated October 30, 1877.
No. 157,430 to Joseph Tilton, dated December 1, 1874.
No. 185,871 to C. W. Saladee, dated January 7, 1877.

Also the following letters patent of Great Britain:

English patent to William Manton, No. 4092, dated January 20, 1817.

English patent to Mark Newton, No. 2524, dated November 1, 1853.

English patent to J. J. Caterson, No. 2642 of 1853.

17 Ninth. And these defendants, further answering, on information and belief, say, that the said Henry Timken was not the original and first inventor and discoverer of any material or substantial part of the thing patented aforesaid, but on the contrary thereof, that the same thing in all material and essential features and particulars and the same principle and combinations had been previous to the alleged invention of Henry Timken known to and used by the following-named persons, and at the following places, to wit: At Detroit, Michigan, and Grosse Point, Michigan, which use is known among others to Joram Priest and Pontif Guinn, who now reside at Grosse Point, Michigan; and Dr. Drake and Alonzo Rolf now residing at Chicago, Illinois; to Thent and Lutz and Joseph Bushaway, now residing at Detroit, Michigan.

At Indianapolis, Indiana, which use is known to S. E Kierolf, who now resides near Dyersburg, in Dyer county, Tennessee; and to Wm. Curry, now residing at Noblesville, Ind.; to Joseph W. Buchannan, William Goebler and Charles E. Matlock, all now residing at Indianapolis, Indiana. At Elmira, State of New York, which use is known to P. M. C. Townsend, who now resides at Elmira, State of New York, and to Gleason, who now resides at Cortland, State of New York.

At New York city, which is known to Joseph Tilton and R. M. Stivers, who now reside at New York city, State of New York, all of which use and knowledge was prior to the pretended invention of said Henry Timken, and more than two years prior to the application for the letters patent of Henry Timken upon which this suit is brought.

Tenth. And these defendants, further answering, say, that they have had, and now have, the right to make, use and sell articles, to restrain the manufacture, use and sale of which this suit is brought under the authority, and by virtue of the right vested in these defendants so to do under United States letters patent No.
18 246,571, granted to William H. Stickle for vehicle springs, dated August 30, 1881, and reissued to defendant Thomas D. Olin, August 21, 1883, as reissue No. 10372, which letters patent was and is owned by these defendants.

Eleventh. And these defendants, further answering, on information and belief, deny that the complainant or any one else has ever, by the practice of said alleged invention, described and claimed in said letters patent, made any carriage springs or any other articles, to the great advantage of the public, or that the public have generally acknowledged and acquiesced in the alleged rights of the complainant, and deny that the said Timken was or is receiving from licenses the sum of two dollars per set for said springs.

Twelfth. And these defendants, further answering, say, that they are ignorant of how much time and money the said complainant may have expended in and about the said alleged invention, and leave him to make such proof thereof as he may be advised.

Thirteenth. And these defendants, further answering, deny that they have ever contrived to injure said complainant or to defraud him of any profits, benefits or advantages whatever, and further deny that they are now or have been threatened, or have ever threatened, to make, use and sell, or to make, to use or sell any carriage springs or any other article in infringement of the said alleged improvement or invention, described and claimed in the said letters patent here in suit. And they deny that they have ever at any time, or at any place, made, used or sold any such article.

Fourteenth. And these defendants, further answering, say, on information and belief, that in view of the state of the art as it existed at the time of the alleged invention of Henry Timken, the specification and drawings attached to the said letters patent did not disclose any new and useful art, machine or manufacture, or any new and useful improvement in any art, machine or manufacture,
19 and that the matter embraced in said letters patent was not such at that time as could lawfully be the subject of any letters patent. And that even if the said letters patent do disclose any view of the state of the art, anything patentable, the claim of said patent must be strictly construed, and so construed cannot include any feature of the springs manufactured and sold by defendants.

Fifteenth. And these defendants, further answering, deny each and every other allegation in the said bill of complaint contained,

not hereinbefore admitted, controverted or denied, and these defendants pray the same benefit of the facts and things herein set forth, as if for the reason thereof, the said bill had been demurred to where a demurrer would have been proper, and the same benefit thereof as if they had been specially pleaded to said bill.

Wherefore, these defendants submit to this honorable court, that said complainant has no right to any further answer to said bill, or any part thereof, than is hereinabove contained, and no right to any injunction, account or other relief prayed for in said bill; and these defendants pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

And will ever pray, etc.

THOMAS D. OLIN.
EDWIN D. OLIN.

GEO. J. MURRAY,
Solicitor for Defendants.
W. H. DOOLITTLE, *Of Counsel.*

STATE OF OHIO, }
County of Hamilton, } *ss:*

Thomas D. Olin and Edwin D. Olin, being first duly sworn,
20 depose and say that they are the defendants named in the foregoing answer, subscribed by them, that they have read the same and know the contents thereof, and that the same is true of their own knowledge, except as to matters therein stated on information and belief, and as to those matters they verily believe it to be true.

THOMAS D. OLIN.
EDWIN D. OLIN.

Subscribed and sworn to before me, this 26th day of March, 1886.
[SEAL.] DAVID S. OLIVER,
Notary Public, Hamilton County, Ohio.

80c. due notary.

D. S. O.

21 And afterwards, to wit, on the 15th day of May, A. D. 1886, an entry was made upon the journal of said court clothed in the words and figures following, to wit:

Journal W, p. 301.

Upon motion of complainant's counsel, for good cause shown, leave is granted complainant to file replication herein, and the same is filed.

22 And afterwards, to wit, on the 15th day of May, A. D. 1886, the following replication was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Replication.

Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMMEN
vs.
THOMAS D. OLIN AND EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co. } No. 3853. In Equity.

The replication of the above-named complainant to the answer of the above-named respondents.

This repliant, saving and reserving to himself, now and at all times hereafter, all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of said answer, for replication thereunto, says that he will aver, maintain, and prove this bill of complaint to be true, certain, and sufficient in law to be answered unto; and that the said an-
23 swer of the said respondents is uncertain, untrue, and insufficient to be replied unto by this repliant; without this, that any other matter or thing whatsoever in the said answer contained, material or effectual in the law to be replied unto, and not herein and hereby well and sufficiently replied unto, confessed and avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver, maintain, and prove as this honorable court shall direct, and humbly prays as in and by his said bill he has already prayed.

WM. M. ECCLES, of St. Louis, Mo.,
WM. HUBBELL FISHER, Cincinnati, Ohio,
Solicitors for Compl-inant.

And afterwards, to wit, on the 28th day of October, A. D. 1886, the following motion was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Motion.

Circuit Court of the United States, Southern District of Ohio, Western Division.

24 HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co. } In Equity. No. 3853.

Motion to file amended bill of complaint.

The complainant in the above-entitled — moves this honorable court upon the proposed amended bill of complaint herewith filed for leave to file the same as an amended bill of complaint in said cause.

The affidavit of Henry Timmen, complainant, in support of this motion is filed herewith.

WM. HUBBELL FISHER,
Of Sol'rs and Counsel for Complainant.

Cincinnati, O., Oct. 28, 186–.

And afterwards, to wit, on the 28th day of October, A. D. 1886, the following affidavit of Henry Timken was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Affidavit of Henry Timmen.

U. S. Circuit Court, Southern District of Ohio, Western Division.

25 HENRY TIMKEN *vs.* THOMAS D. OLIN *et al.* } In Equity. No. 3853. Affidavit.

Henry Timken, being duly sworn, says that at the time of filing the bill of complaint in the above-entitled cause, William M. Eccles, St. Louis, who has long acted in the capacity of attorney for said Henry Timmen, and was best acquainted with the application in practice of the several improvements in springs by Timken and Cyrus W. Saladee, as well as with the details pertaining to the matter in issue, was dangerously ill, and unable to confer with the said Henry Timken as to the proper course to pursue to stop the infringements of the defendants to this suit, and that the said Henry Timmen thereupon authorized Wm. Hubbell Fisher, of Cincinnati, to file the bill now in this case, and that it was not until the latter days of July last, viz., since the filing of the replication, the said Wm. M. Eccles had so far improved that he has been enabled to consult with the said Henry Timken and the said Wm. Hubbell Fisher and to better inform them of the details of the cause, and as the result of the said conference the said Timmen, Eccles, and Fisher concluded that the devices manufactured by the defendants to this suit infringed United States letters patent No. 239,850, granted April 5, 1881, to Cyrus W. Saladee for improvements in road wagons, as well as the United States letters patent No. 197,689 granted Nov. 27, 1877, to Henry Timken for improvements in vehicle springs, and for the infringement of which latter
26 letters patent this suit was originally brought, and that it would be necessary to ask for leave to amend the bill in this cause so as to include a complaint as to the infringement by the said defendants of the said patent to Cyrus W. Saladee as well as an infringement*ment* of the said patent to Henry Timmen; that this amendment is necessary to properly determine the equities of the cause, as both the patents referred to are infringed by the same device as manufactured by the defendants, and that this amendment is not intended for the purpose of delay or vexation, but for the purpose of saving unnecessary expense and avoiding oppressive litigation resulting from more than one suit for infringements by the

same device, and the complainant further state that he is informed and believes that the defendants are infringing the said reissued patent No. 9542, which he has embraced in this his amended bill by the device which the defendants are making and selling.

HENRY TIMKEN.

STATE OF MISSOURI, } ss:
City of St. Louis, }

Sworn and subscribed before me this 4th day of October, A. D. 1886.

Witness my hand and official seal.

[SEAL.] C. D. GREEN, JR.,
Notary Public.

27 And aftewards, to wit, on the 28th day of Oct., A. D. 1886, the following amended bill was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Amended Bill.

Circuit Court of the United States for the Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the firm of T. D. Olin & Co., Respondents. } In Equity. No. 3853.

Amended Bill of Complaint.

To the honorable the judges of the circuit court of the United States for the southern district of Ohio, western division:

Your orator, Henry Timken, a citizen of the State of Missouri, and residing at the city of St. Louis, in said State, brings this his amended bill of complaint against the above-named defendants, to wit: Thomas D. Olin, a citizen of the State of Indiana, and residing at the city of Terre Haute, in said State of Indiana, and Edwin D. Olin, a citizen of the State of Ohio, and residing at Avondale, in the county of Hamilton and State of Ohio, the said defendants being associated together and doing business in the city of Cincinnati, in the county of Hamilton and the State of Ohio, under the firm-name and style of "T.
28 D. Olin & Co.," and thereupon your orator complains and says:

That he, the said Henry Timken, is the original and first inventor of an "improvement in carriage springs," fully described in the letters patent hereinafter mentioned, and which had not been in public use or on sale for more than two years prior to his application for letters patent therefor.

And your orator further shows unto your honors that he, the said Henry Timken, being so as aforesaid the first inventor and dis-

coverer of said improvement, and being also a citizen of the United States, did, on November the twenty-seventh, in the year one thousand eight hundred and seventy-seven, upon due application therefor, obtain letters patent of the United States for said invention in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents of the United States, bearing date the day and year last aforesaid, and numbered one hundred and ninety-seven thousand six hundred and eighty-nine (197,689), whereby there was granted and secured to your orator, the said Henry Timken, his heirs or assigns, or intended so to be, for the term of seventeen years from and after the date of the said letters patent, the full exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention and improvement, as set forth in said letters patent, which are now of record in the Patent Office of the United States, and by virtue whereof your orator became and now is the sole owner of all the rights and privileges granted and secured, or intended to be granted and secured, in and by the said letters patent, as by said letters patent, or a duly certified copy thereof here in court ready to be produced, will fully and at large appear.

And your orator further complains and says, on information and belief, that one Cyrus W. Saladee, of Wolcottville, State of
29 Connecticut, before and at the time of his application for the hereinafter-mentioned letters patent number 239,850, was a citizen of the United States, and was the original and first inventor of a certain new and useful invention, to wit: "Improvements in road wagons," not known or used before his (said Saladee's), invention; and was not in public use or on sale more than two years prior to his application for letters patent of the United States therefor.

And your orator, on information and belief, further shows unto your honors that the said Cyrus W. Saladee, being so, as aforesaid, the first inventor and discoverer of said improvements, and, being also a citizen of the United States did, on the fifth day of April, A. D. 1881, upon due application therefor, obtain letters patent of the United States for said invention, in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents of the United States, bearing date the day and year last aforesaid, and numbered two hundred and thirty-nine thousand, eight hundred and fifty (239,850), whereby there was granted and secured to the said Cyrus W. Saladee, his heirs and assigns, or intended so to be, for the term of seventeen years from and after the date of said letters patent, the full exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention and improvements, as set forth in said letters patent, by virtue whereof the said Cyrus W. Saladee became the sole owner of all the rights and privileges granted and secured, or intended to be granted and secured in and by the said letters patent, which letters patent are recorded in the Patent Office of the United States.

And your orator further shows unto your honors, that afterward, to wit: On or about the 22d day of April, 1882, the said Cyrus W. Saladee, by an assignment in writing of that date, sold, assigned, and transferred unto George M. Peters, and Clinton D. Firestone, and Oscar G. Peters, composing the "Columbus Buggy Co." and
30 the "Peters Dash Co." of the city of Columbus, State of Ohio aforenamed, all his (said Saladee's) right, title and interest in and to said letters patent number 239,850, and the inventions described and claimed therein, which said assignment was duly recorded in the Patent Office of the United States as by said assignment, or a duly authenticated copy thereof, and the certificate of such recording thereto affixed, ready in court to be produced, will fully and at large appear.

And your orator further shows unto your honors, that afterward, to wit: On or about the eighth day of December, 1884, the said George M. Peters, Clinton D. Firestone and Oscar G. Peters, by an assignment in writing of that date, sold, assigned and transferred unto your orator, Henry Timken, all their right, title and interest in and to the said letters patent number 239,850, and the invention described and claimed therein, which said assignment was duly recorded in the Patent Office of the United States, as by said assignment, or a duly authenticated copy thereof, and the certificate of such recording thereto affixed, ready in court to be produced, will fully and at large appear.

And your orator further shows unto your honors, that by virtue of the premises, to wit: The assignments aforementioned, he became, and now is the sole and exclusive owner of said letters patent number 239,850, and the inventions described and claimed therein, and of all the rights and privileges granted and secured or intended to be granted and secured thereby.

And your orator avers that from and after the issue of the letters patent first herein named, to wit: The twenty-seventh day of November, 1877, he has actively and largely engaged in the manufacture for sale, and in the sale of the improvements in road vehicles described in and covered by the said letters patent number 197,639, and has expended, and is now expending much time and money in introducing and putting on the market said improvements
31 in road vehicles, and bringing the same to the knowledge of and into favor with dealers, manufacturers and users of vehicles throughout the United States of America and the territories thereof, and in making it useful to the public, and had, prior to the alleged infringements, hereinafter pleaded, and has now a large and remunerative trade and business with said manufacturers secured to him by virtue of the said patent, the emoluments of which had exclusively inured to him and his benefit, until the infringements of his rights by the defendants herein.

And your orator avers that said invention has been and is of great benefit and advantage, and that from the said twenty-seventh day of November, 1877, up to the present time, he has continued to manufacture and sell, and have others manufacture and sell, such improvements in road vehicles (containing the invention described

and claimed in said letters patent number 197,689), numbering in the whole, to the time of the commencement of this suit, above two hundred thousand sets.

And your orator avers, that from and after the issue of the letters patent first named, viz., 197,689, he granted licenses to other persons to manufacture for sale his invention described in and covered by said letters patent number 197,689, and his licensees, in accordance with such licenses have manufactured and sold great numbers of the improvement described in and covered by said letters patent number 197,689, and that he has received the exclusive emoluments therefor and for the manufacture thereof.

And your orator further shows that said invention has been and is of great benefit and advantage; and that great numbers of vehicle springs and connections embodying the said last-named invention have been made and sold by your orator and his licensees, to the great advantage of the public, and that the public have generally acknowledged and acquiesced in the aforesaid rights of your orator.

32 And your orator shows that he is in the full enjoyment of all the rights and interests acquired by him as aforesaid, and that said rights and interests have been and are of great value to your orator, and your orator is entitled to all the damages occasioned by the infringements of both the said letters patent or either of them, by the manufacture, sale or use of improvements in road vehicles, made in violation of the said letters patent, or either of them, and is by law entitled to sue for and receive the same to his own use.

And your orator further shows, that prior to the infringements hereinafter complained of, he was receiving from his licensees, a license fee of two dollars per set of springs manufactured and sold, and collected the same without hindrance or delay, or without dissatisfaction on the part of those undertaking, and agreeing to pay the same; but defendants have received much larger profits and greatly damaged him by selling an inferior article, and your orator believes he will realize and receive large gains and profits therefrom, if infringements by said defendants and their confederates shall be prevented.

And your orator further complains, and says, on information and belief, and further shows unto your honors, that one Joseph Tilton, of New York, State of New York, before and at the time of his application for the hereinafter-mentioned patent and reissued patent, was a citizen of the United States, and was the original and first inventor of a certain new and useful invention, to wit: improvement in springs for vehicles, not known or used before his invention; and was not in public use, or on sale, more than two years prior to his application for letters patent of the United States therefor.

And your orator, on information and belief, further shows unto your honors, that the said Joseph Tilton, being, so as aforesaid, the first inventor and discoverer of said improvements, and being a citizen of the United States, did on the first day of December,

1874, upon due application therefor, obtain the issue of letters patent No. 157,430, of the United States to himself and one
33 Rufus M. Stivers, assignee of one-half of said invention, of the city of New York, State of New York, under due form of law, under the seal of the Patent Office, and signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents; that thereupon, for good and lawful reasons, presented to the Commissioner of Patents, and on the 27th day of November, 1880, the said Tilton and Stivers did surrender said patent, and did, in due form of law, and after complying with the statutes in such cases made and provided, make application for a reissue of said letters patent No. 137,430, and thereupon, on the 25th day of January, 1881, upon due application filed therefor, did obtain the issue of reissued letters patent for such invention, to himself and Rufus M. Stivers, of New York, assignee of one-half of said invention (said assignment being duly made, and of record in the Patent Office, before issue of said first letters patent to said Tilton and Stivers), in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents, and dated the 25th day of January, 1881, and marked "reissued letters patent No. 9542," whereby there was granted and secured to the said Tilton and Stivers, their heirs and assigns, or intended so to be, for the unexpired term of said original patent, the full and exclusive right and liberty of making, constructing, using and vending to others to use, the said invention or improvements, as set forth in said reissued letters patent, by virtue whereof the said Tilton and Stivers became, and were, the sole owners of all the rights and privileges granted and secured, or intended to be granted and secured by said reissued letters patent, which said reissued and original patents are recorded in the Patent Office of the United States.

And your orator further shows unto your honors that afterwards to wit: On the 22d day of March, 1881, the said Joseph Tilton and
34 the said Rufus M. Stivers, by an assignment in writing, assigned and transferred unto Henry Timken, the complainant herein, for the consideration of four thousand dollars, to them in hand paid, all their right, title and interest in and to said reissued patent No. 9542, and the inventions described and claimed therein, which assignment was duly recorded in the Patent Office of the United States, as by said assignment, or a duly authenticated copy of which, and the certificate of such recording, thereto affixed, ready in court to be produced, will fully and at large appear.

And your orator further shows unto your honors, that by virtue of said assignment, he became and now is the exclusive owner of said reissued letters patent No. 9542, and the inventions described and claimed therein, and of all the rights and privileges granted and secured thereby.

And your orator further represents unto your honors, upon information and belief, that the inventions embraced and claimed in the several aforementioned patents, are capable of conjoint use with each other, and that since the granting of the said letters patent No.

239,850, and before the filing herein of the original bill of complaint, the said defendants, well knowing the premises, and in violation of your orator's exclusive rights derived from said several letters patent, have made, used, and vended to be used, improvements in vehicle springs, which embody in their construction, the inventions and combinations covered by the said reissued letters patent No. 9542, and said patent No. 197,689, and said patent No. 239,850 conjointly, as part of the same improvements in vehicle springs and combinations, and which improvements embody in one and the said device, or structure, all of the inventions and combinations secured by the said several letters patent Nos. 9542, 197,689 and No. 239,850.

Your orator further shows unto your honors, that since the month of August in the year 1881, the said defendants, well knowing the premises, and the rights and privileges secured by your orator
35 (the said Timken), by the said letters patent No. 197,689, No. 239,850, and reissued patent No. 9542, but contriving to injure your orator, and to deprive him of the profits, benefits and advantages which might, and otherwise would, accrue unto him from said inventions, and before the commencement of this suit, did, as your orator is informed and believes, and does now, without his license or consent, and against the will of your orator, and in violation of his rights, and infringement of said several letters patents Nos. 197,689, 239,850, and No. 9542, make, use, and vend to be used, vehicle springs embodying the same inventions and improvements and combinations, or substantially the same as are described and claimed in patent No. 9542, and are thus infringing patent No. 9542; and also have been, and are now making, using or vending to be used, vehicle springs embodying the same mechanical construction and operation, or substantially the same, and containing the same inventions or combinations, or substantially the same as are described and claimed in patent No. 197,689, and thus are infringing patent No. 197,689.

And likewise have been and are now making, using, or vending to be used vehicle springs, embodying the same mechanical construction and operation, or substantially the same, and containing the said inventions or combinations, or substantially the same as are described and claimed in patent No. 239,850, and thus infringe patent No. 239,850.

And thus in defiance of your orator's rights, they have and do unlawfully and wrongfully make, construct, use and vend to others to be used, the said inventions and improvements in vehicle springs, made according to, and containing said inventions in either of said patents described and claimed, and did thus infringe each of the aforesaid patents jointly and separately, and they still continue so to do, and they are threatening to make the aforesaid improvements in vehicle springs and road vehicles in large quanti-
36 ties, and to supply the market therewith, and to sell the same, but what number of improvements in road vehicles made according to and employing and containing said inventions, the said defendants have made or caused to be made, your orator

does not know and cannot state, but upon information and belief, your orator avers that they have made large numbers of the same, and that they have derived and receive, and are still deriving and receiving from such sale, great gains and profits, but to what amount your orator is ignorant and cannot set forth; but your orator beli-ves the same to be the full sum of ten thousand dollars, and so charges the fact to be; and prays that the defendants and either of them, may be required to make a disclosure of all such gains and profits.

And your orator further avers that the defendants continue to make such improvements in road vehicles, and refuse, though warned and requested to desist from such manufacture, or to pay to your orator such gains and profits, by means whereof the defendants have injured, and are still greatly injuring your orator, and have deprived and are still depriving your orator of, and have prevented, and are still preventing your orator from receiving the gains and profits from the use of the exclusive right to use the inventions and improvements claimed in the said two letters patent or either of them, which your orator otherwise, and but for wrongful acts of the said defendants, would have obtained and received.

And forasmuch as your orator can have no adequate relief except in this court, to the end therefore, that the said defendants may, if they can, show why your orator should not have the relief hereby prayed, and may, upon their several and respective corporal oaths, and according to the best and utmost of their several and respective knowledge, remembrance, information and belief, full, true, direct and perfect answers make to the matters and things hereinbefore stated and charged; and that the said defendants may answer the premises, and be compelled by a decree of this court to ac-
37 count for and pay over to your orator all such gains and profits as have accrued or risen to, or been earned or received by the defendants, or either of them, or to which they, or either of them, may be entitled by reason of such unlawful manufacture and sale by them, or either of them, of such improvements in road vehicles, manufactured in accordance with the inventions described and claimed in said letters patent, or in either of them, and all such gains and profits as your orator would have received but for the said unlawful acts and doings of the said defendants, and also all damages which your orator has sustained by reason of said infri-gements to be assessed by your honors.

And your orator further prays, that the defendants be required to disclose whether they are carrying on business as a firm or a corporation, and if as a firm, is the name of the firm "T. D. Olin & Co.," or what is the name of the firm, and how long they have so carried on said business under said name, and under what name of firm they manufactured, used or sold said inventions, or either of them, and when and to whom they have sold said inventions, or either of them, and when they first commenced to make and vend the same.

And may it please your honors, the premises considered, to grant

unto unto your orator the writ of injunction, issuing out of and under the seal of this honorable court, or issued by one of your honors, according to the form of the statute in such case made and provided, provisionally, and perpetually, enjoining and restraining the said defendants and either of them, their clerks, attorneys, agents, servants, and workmen, and each and every of them, from directly or indirectly, making, constructing, vending, delivering, working, or putting into practice, operation or use, or in anywise counterfeiting or imitating the said inventions, or any part thereof, described and claimed in said letters patent, or either of them, or any such improvement or improvements in road vehicles made in accordance therewith, or like or similar to those which they
38 have heretofore made; and that your orator may have such further relief, or such other relief in the premises, as the nature of this case may require, and to this honorable court shall seem meet.

May it please your honors to grant unto your orator, not only the writ of injunction conformable to the prayer of this bill, but also a writ of subpœna, directed to the said Thomas D. Olin and Edwin D. Olin, commanding them, on a day certain, therein to be named, to be and appear in this honorable court, then and there to answer the premises, and to stand to, perform, and abide such further order, direction and decree, as may be made against them.

And your orator, as in duty bound, will ever pray, etc.

(Signed) HENRY TIMKEN.

WM. M. ECCLES AND
WM. HUBBELL FISHER,
Solicitors and Counsel for Complainant.

UNITED STATES OF AMERICA, }
Eastern District of Missouri, } ss:

On this 4th day of October, 1886, personally appeared before me, C. D. Green, Jr., a notary public in and for the city of St. Louis, State of Missouri, the subscriber, Henry Timken, who being duly sworn, says that he is the complainant named in the foregoing amended bill of complaint, that he has read the said amended bill of complaint subscribed by him and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters therein stated on information and belief, and as to those matters he believes it to be true.

(Signed) HENRY TIMKEN.

Sworn to and subscribed before me this 4th day of October, 1886.

[SEAL.] C. D. GREEN, JR.,
Notary Public.

39 And afterwards, to wit, on the 30th day of October, A. D. 1886, an entry was made upon the journal of said court, clothed in the words and figures following, to wit:

Journal W, p. 515.

This cause came on to be heard on motion for leave to file amended bill of complaint and leave to file amended bill is hereby granted.

It is further ordered that the respondents have 30 days from October 30th, 1886, in which to file their answer to said amended bill, and complainant has 10 days after the filing of said answer in which to file replication and has 40 days after the filing of replication in which to take his opening testimony.

And afterwards, to wit, on the 9th day of December, A. D. 1886, the following amended answer was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Answer to Am'd Bill.

Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co. } In Equity. No. 3853.

Answer to amended bill.

The joint and several answers of Thomas D. Olin and Edwin D. Olin to the amended bill of complaint of Henry Timken, complainant:

These defendants now and at all times hereafter, saving and reserving to themselves and each of them, all, and all manner of benefit and advantage of exception that can or may be taken to the many errors, uncertainties, insufficiencies, and imperfections in the said amended bill of complaint, for answer thereto, or unto so much thereof as they are advised is material or necessary for them to make answer unto, answering, say:

First. They admit upon information and belief, that letters patent of the United States numbered 239,850 were, on the fifth day of April, A. D. 1881, granted to Cyrus W. Saladee for alleged improvements in road wagons, alleged to have been made by said Cyrus W. Saladee, but whether the said Cyrus W. Saladee made appli-
41 cation in due form of law for said letters patent, or whether he complied with all the requirements of the statutes in such case made and provided, this defendant does not know, and is not informed, and therefore leaves said complainant to make such proof thereof as he may be advised.

Second. These defendants further answering say, they have no knowledge whether the said Cyrus W. Saladee ever executed and delivered any instrument of assignment to George M. Peters, and Clinton D. Firestone, and Oscar G. Peters, comprising the Columbus Buggy Co., and the Peters Dash Co., purporting to convey the

entire right, title and interest in said alleged invention, nor have they any knowledge that the said George M. Peters, Clinton D. Firestone and Oscar G. Peters ever executed and delivered any instrument of assignment to complainant Henry Timken, purporting to convey the entire right, title and interest in said alleged invention, and therefore leaves complainant to make such proof thereof as he may be advised.

Third. And these defendants further answering, on information and belief, deny that the said improvements had not been known or used before the alleged invention thereof by the said Cyrus W. Saladee, or that the said alleged improvements had not been for more than two years, at the time of his application for a patent therefor, in public use, or for sale.

Fourth. And these defendants deny that the said alleged invention is useful, or that it is, or was an improvement or advance in this art, but on the contrary thereof, on information and belief these defendants aver and charge the fact to be, that the said letters patent are null and void for want of utility, and also for a further and separate reason, for want of invention in the said Cyrus W. Saladee.

Fifth. And these defendants, further answering, deny that they have ever made, used or sold or caused to be made, used or sold, any device or apparatus covered by the said letters patent,
42 and likewise deny that they have ever derived any profit from any such, making, using or selling, and likewise deny that the complainant ever incurred any damage on account of such transaction committed, or caused to be committed by these defendants.

Sixth. That these defendants further answering say: They admit, on information and belief, that letters patent of the United States numbered 157,430 were, on the first day of December, 1874, granted unto Joseph Tilton and Rufus M. Stivers jointly for an alleged improvement in springs for vehicles, alleged to have been made by Joseph Tilton, but whether the said Joseph Tilton made application in due form of law for said letters patent, or whether he complied with all the requirements of the statutes in such cases made and provided, this defendant does not know and is not informed, and therefore leaves complainant to make such proof thereof as he may be advised.

Seventh. This defendant further answering says, that they are not advised save by said bill of complaint, whether any interest in said letters patent was assigned before the granting thereof, or at any time to Rufus Stivers, or whether said letters patent were properly granted to said Tilton and Stivers jointly as set forth in said amended bill or otherwise, or whether said alleged assignment was duly recorded in the Patent Office, and leaves complainant to make such proof thereof as he may be advised.

Eighth. These defendants, further answering, admit, upon information and belief, that the said letters patent number 157,430 were surrendered, and a reissue obtained therefor, bearing date, the twenty-seventh day of January, A. D. 1881, number 9542, sub-

stantially as in said bill alleged, except that they do not admit that the said original patent was lawfully surrendered and reissued, nor do they admit that the said original patent was inoperative or invalid by reason of any defect, insufficiency, or any other error which had arisen by inadvertence, accident or mistake.

43 Ninth. These defendants, further answering, on information and belief, aver that the said original patent No. 157,430 was not surrendered for any good or lawful cause, and they aver that said original patent No. 157,430 was not inoperative or invalid by reason of a defective or insufficient specification, or by reason of any other error which had arisen from inadvertence, accident or mistake; and they aver that the said patent reissue No. 9542 is not for the same invention as said original patent, if constructed as now contended for by complainant, and upon any construction, the claims of said patent are for inventions not shown or described or otherwise contained in said original patent.

Tenth. These defendants, further answering, upon information and belief, aver that new matter has been introduced into the specification of said reissue No. 9242, if same is construed as now contended for by the complainant, and that the introduction of such new matter is contrary to the statutes in such case made and provided, and that therefore such patent is wholly null and void. Defendants further answering, upon information and belief, aver that the said reissue patent No. 9542 has been unlawfully enlarged, and made to contain new matter and things without the authority of law, and which were not in the invention of Joseph Tilton, and therefore the said reissue No. 9542 is wholly null and void.

Eleventh. These defendants, further answering, upon information and belief, deny that the said supposed invention or discovery originally patented to Tilton and Stivers is of any value to, or useful to the public, and they deny that the same has been extensively introduced into public use, and that the public has generally acquiesced in any supposed exclusive right to the same; and they aver, on information and belief, that the actual facts will show that the supposed invention or discovery is not reliable or useful.

Twelfth. And these defendants, further answering, deny

44 that they have ever made, used or sold, or caused to be made, used or sold, any device or apparatus covered by said letters patent, and likewise deny that they have ever derived any profit from any such making, using or selling, and likewise deny that the complainant ever incurred any damage on account of such transaction committed or caused to be committed by these defendants.

Thirteenth. And these defendants further answering, aver and charge the fact to be, that said Joseph Tilton was not the original and first inventor of the said alleged improvement in springs for vehicles, described and claimed in said original letters patent No. 157,430 or said reissue letters patent No. 9542, but on the contrary thereof, that the same thing, in all material and essential features, and the same principle and combinations were, previous to said alleged invention of Joseph Tilton, fully described and set forth in the following publications and letters patent long prior to the al-

leged or any invention or discovery thereof by the said Joseph Tilton, to wit:

The letters patent of the United States hereinafter enumerated as follows:

No. 8105, to L. Bissell, dated May 20, 1851.
No. 34549 to G. W. La Baw, dated February 25, 1862.
No. 63668 to Anson K. Stone, dated April 9, 1867.
No. 63669 to Anson K. Stone, dated April 9, 1867.
No. 108,649 to Sidney Steward, dated October 25, 1870.
No. 15126 to J. W. Fiester, dated June 17, 1856.
No. 7085 to M. G. Hubbard, dated February 12, 1850.
No. 7796 to M. G. Hubbard, dated November 26, 1850.
No. 8244 to M. G. Hubbard, dated July 22, 1851.
No. 12890 to M. G. Hubbard, dated May 15, 1855.
No. 107,386 to G. W. Kenan, dated September 13, 1870.
No. 154,749 to C. L. Fisher, dated September 8, 1874.
No. 151,876 to H. A. Hight, Sr., dated June 9, 1874.
No. 139,348 to T. H. Wood, dated May 27, 1873.
No. 87675 to C. H. Hindson, dated March 9, 1869.
No. 84446 to W. F. Vernier, dated November 24, 1868.

45 Also the following letters patent of Great Britain:

English patent to William Manton, No. 4092, dated January 20, 1817.

English patent to Mark Newton, No. 2524, dated November 1, 1853.

English patent to J. J. Caterson, No. 2642, of 1853.

Fourteenth. And these defendants, further answering, on information and belief, say, that the said Joseph Tilton was not the original and first inventor and discoverer of any material or substantial part of the thing patented aforesaid, but on the contrary thereof, that the same thing in all material and essential features and particulars, and the same principle and combinations, had been previous to the alleged invention of Joseph Tilton, known to and used by the following-named persons, and at the following places, to wit: At Detroit, Michigan, and Grosse Point, Michigan, which use is known among others to Joram Priest and Pontiff Guinn, who now reside at Grosse Point, Michigan, and to Dr. Drake and Alonzo Rolf, now residing at Chicago, Illinois; to Thirst and Lutz, and Joseph Bushaway now residing at Detroit, Michigan; at Indianapolis, Indiana, which use is known to S. E. Kierolf, who now resides near Dyersburg, in Dyer county, Tennessee, and to William Curry, now residing at Noblesville, Indiana; to Joseph W. Buchanan, William Goebler, and Charles E. Matlock, all now residing at Indianapolis, Indiana. At Elmira, State of New York, which use is known to P. M. C. Townsend who now resides at Elmira, State of New York, and to — Gleason, who now resides at Cortland, State of New York. All of which use and knowledge was prior to the pretended invention of said Joseph Tilton, and more than two years prior to the application for the letters patent of Joseph Tilton, upon which this suit is brought.

Fifteenth. And these defendants, further answering, aver, and

charge the fact to be, that the said Cyrus W. Saladee was not
46 the original and first inventor or discoverer of the said alleged improvement in road wagons, described and claimed in said letters patent, No. 239,850 of April 5, 1881, but on the contrary thereof, that the same thing in all material and essential features, and the same principle and combination, were previous to the said alleged invention of said Cyrus W. Saladee, fully described and set forth in the publications and letters patent hereinbefore set forth under clause thirteenth of this amended answer, and in addition thereto following, to wit:

No. 169,808 to H. A. Hight, Sr., dated November 9, 1875.
No. 171,757 to W. F. Baird, dated January 4, 1876.
No. 196,536 to M. Newton, dated October 30, 1877.
No. 197,689 to H. Timken, dated November 27, 1877.
No. 204,707 to J. Bowman, dated June 11, 1878.
No. 218,419 to D. S. Bailey, dated August 12, 1879.
No. 224,859 to M. Woodhull, dated February 24, 1880.
No. 157,430 to Joseph Tilton, dated December 1, 1874.
No. 185,871 to C. W. Saladee, dated January 7, 1877.

Sixteenth. And these defendants, further answering, on information and belief, say, that the said Cyrus W. Saladee was not the original and first inventor or discoverer of any material or substantial part of the thing patented aforesaid, but on the contrary thereof, that the same thing in all material and essential features and particulars, and the same principle and combination, had been long previous to the alleged invention or discovery of said Cyrus W. Saladee known to, and publicly used by the persons, and at the places set forth in clause fourteen of this amended answer, and in addition thereto, the following:

At New York city, which use was known to Joseph Tilton, and R. M. Stivers who now reside at New York city, State of New York.

Seventeenth. And these defendants further answering say, that they have had, and now have, the right to make, use and sell
47 articles, to restrain the manufacture, use and sale of which this suit is brought, under the authority, and by virtue of the right vested in these defendants so to do, under United States letters patent No. 246,571, granted to William H. Stickle, for vehicle spring, dated August 30, 1881, and reissued to defendant Thomas D. Olin, August 21, 1883, as reissue No. 10372, which letters patent *was* and *is* owned by these defendants.

Eighteenth. And these defendants, further answering, say, on information and belief, that in view of the state of the art as it existed at the time of the alleged invention of Joseph Tilton and Cyrus W. Saladee, the specifications and drawings attached to the letters patent aforesaid did not disclose any new and useful art, machine or manufacture, or any new and useful improvement in any art, machine or manufacture, and that the matter embraced in said letters patent was not such at that time as could lawfully be subject of any letters patent, and that even if the said letters patent do disclose in view of the state of the art, anything patentable, the claims of said patents must be strictly construed, and so construed can-

not include any feature of springs manufactured and sold by defendants.

Nineteenth. And these defendants, further answering, deny each and every other allegation in the said amended bill of complaint contained, not hereinbefore admitted, controverted or denied, and these defendants pray the same benefits of the facts and things herein set forth as if, for the reason thereof, the said amended bill of complaint had been demurred to, where a demurrer would have been proper, and the same benefit thereof as if they had been specially pleaded to said amended bill.

Wherefore, these defendants submit to this honorable court that said complainant has no right to any further answer to said amended bill, or any part thereof, than is hereinabove contained, and no right for any injunction, account or other relief prayed for in said amended bill, and these defendants pray to be hence dis-
48 missed with their reasonable costs and charge in this behalf most wrongfully sustained, and will ever pray, etc.

EDWIN D. OLIN.

GEO. J. MURRAY,
Sol'r and Counsel for Defendants.

UNITED STATES OF AMERICA, }
Southern District of Ohio, W. D., } *ss:*

On this the 9th day of December, 1886, before me personally appeared Edwin D. Olin, one of the defendants above named, who, being by me first duly sworn, deposes and says, that he has read the foregoing amended answer subscribed by him, and knows the contents thereof, and that the same is true of his own knowledge, except as to the matter- therein stated on information and belief, and as to these matters he believes them to be true.

[SEAL.] ROB'T C. GEORGI,
Dep. Clerk U. S. C. C., S. D. O.

49 And afterwards, to wit, on the 18th day of Dec., A. D. 1886, the following replication was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Replication.

The Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant, *vs.* THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants.	In Equity. No. 3853.

The replication of Henry Timken, complainant, to the answer to the amended bill of Thomas D. Olin and Edwin D. Olin, composing the firm of T. D. Olin & Co., defendants.

This repliant, saving and reserving unto himself all and all manner of advantage of exception to the manifold insufficiencies of

the said answer, for replication thereunto saith, that he will aver and prove his said bill to be true, certain and sufficient in law to be answered unto, and that the said answer of the said defendant is uncertain, untrue and insufficient to be replied unto by this repliant; without this that any other matter or thing whatsoever in the said answer contained, material or effectual in the law to be replied unto, confessed and avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver and prove as this honorable court shall direct, and humbly prays as in and by his said bill he hath already prayed.

WM. M. ECCLES,
WM. HUBBELL FISHER,
Solicitors for Complainant.

50 And afterwards, to wit, on the 4th day of Feb., A. D. 1887, the following depositions were filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Deposition of Zenas Varney. Exhibits (6).

Complainant's evidence-in-chief.

Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant, *vs.* THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants.	In Equity. No. 3853.

The respondents in above cause will take notice that complainant will examine Zenas Varney, Appleton S. Bridges and perhaps others, under the 69th rule in equity as amended, before A. A. Paxton, notary public and examiner, at the office of Wm. M. Eccles, corner Broadway and Olive street, St. Louis, Mo., beginning at 10 o'clock of Monday, January 31st, 1887, and continuing from day to day until completed.

WM. HUBBELL FISHER,
Per O. M. HILL,
Of Counsel for Complainant.

Received copy of the above, this 29th day of January, A. D. 1887.
GEO. J. MURRAY.

51 In the Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity. No. 3853.

Appearances: For complainant, Wm. M. Eccles; for defendants, G. J. Murray, Esq.

Testimony of Zenas Varney.

A witness called on behalf of the complainant herein, and residing in the city of St. Louis, in the State of Missouri, being duly cautioned and sworn to tell the whole truth, and being carefully examined, deposes and says, as follows:

Q. 1. Give your name, age, residence, business and place of business.

A. 1. My name is Zenas Varney; my age is 40 years. I live in St. Louis, and am a carriage manufacturer at 2009 to 2017 Morgan street, St. Louis, Missouri.

Q. 2. Do you know, or have you ever met either T. D. or E. D. Olin, the defendants in this case?

A. 2. No, I neither know them nor ever met them.

Q. 3. Did you ever order from them a set of springs; if so, state when and whether you received an answer to your order.

A. 3. I ordered a set of springs from them for a company—
52 for our company—the Varney Carriage Company, to be sent by express, I think in November, 1886, I don't remember the day, and received them through the express company, and paid the express company their bill.

Q. 4. The complainant's counsel offers a set of springs and asks the witness to examine them, and state whether or not those are the springs which he received by express in answer to the above order spoken of.

A. 4. Yes, sir, those are the springs.

Complainant's counsel asks the notary to mark said springs as "Complainant's Exhibit A," which is done. (The introduction of these springs is objected to by defendants' counsel, as it appears from the testimony of the witness that they were purchased since the institution of this suit.)

Q. 5. How are these springs intended to be attached to vehicles, or vehicle gears?

(Objection repeated.)

A. 5. They are attached at the ends by clips to the side bars; the wooden bar at the top is either bolted or screwed to the body.

Q. 6. Complainant's attorney presents a copy of the periodical or advertising medium, called the "Carriage Monthly," volume 20,

number 12, and asks the witness to look at page 69, and asks what the cut at the bottom of the page represents, if he knows.

A. 6. It is supposed to represent this spring.

Q. 7. By what name or appellation is this spring known in the trade?

A. 7. It is known as the Olin spring, so far as I know.

Complainant's attorney offers p. 69, of said periodical, from the words, "Olin's combination of springs," to the words, "mounted on bars with shackles" inclusive, and asks the notary to mark it "Complainant's Exhibit A', (prime)," (which is accordingly done, A. A. Paxton, notary).

Q. 8. Do you or the Varney Carriage Company take this periodical called the "Carriage Monthly"?

A. 8. The company does; yes, sir.

53 Q. 9. How long has the company taken it?

A. 9. The company has taken it four years.

Q. 10. Have you ever noticed that advertisement of Olin's just referred to in the "Carriage Monthly" before?

A. 10. Yes, sir.

Q. 11. When did you first notice it, and how often, if you recollect?

A. 11. I could not tell when I first noticed it, but I think it has been there a year or two. I have seen it several times.

Q. 12. Where did you get the address from when you ordered the springs?

A. 12. From that same monthly.

Q. 13. Did anybody ever appear representing themselves as agents of T. D. Olin & Co., and offer to sell you springs or the Varney Carriage Company at any time within the last three years the same in construction as "Complainant's Exhibit A;"—if so state when and where?

A. 13. Well, I couldn't recollect whether they did or not, they may and may not; there are so many come in.

Q. 14. Are you willing to make "Exhibit A" and "Exhibit A' (prime)," a part of your deposition and have the same attached thereto?

A. 14. Certainly.

Q. 15. Did you receive any reply, that is, any letter, in answer to your order for said springs from T. D. Olin & Co.?

A. 15. Yes, sir; I received a letter.

Q. 16. Have you that letter?

A. 16. I may have it, and I may not; I don't know; I may have mislaid it among the files.

Q. 17. What capacity or position do you occupy in the Varney Carriage Company?

A. 17. At present I am the president and treasurer of the company.

54 Cross-examination:

X Q. 1. Is Henry Timken, the complainant, interested in your company?

X A. 1. No, sir; he is not.

X Q. 2. Did you order those springs for him, at his request, or did you order them for use in your business?

X A. 2. I ordered them for him.

(Signed) ZENAS VARNEY.

Subscribed and sworn to before me, this 31st day of January, 1887.

[SEAL.] A. A. PAXSON,
Notary Public.

EXHIBITS.

55 *Stipulation.*

It is hereby stipulated and agreed by the solicitors of the respective parties to this suit and for them, that the spring introduced in evidence as "Complainant's Exhibit A," correctly represents the character of the springs manufactured and sold by the defendants, subsequent to the dates of the respective patents mentioned in the amended bill of complaint, and prior to the institution of this suit.

That uncertified Patent Office copies of drawings and specifications of the United States letters patent and blue books of English patents, may be offered in evidence and used on the hearing with the same force and effect as if duly certified, subject to correction by certified copies, if desired.

That all exhibits offered may be retained by the parties offering the same until the day of hearing, with the right of the opposite party to examine the same at all reasonable times. That the
56 testimony that may be adduced in the case may be taken before any notary public or other officer authorized by law to administer oaths, that may be selected by either party.

It is admitted on the part of the defendants that the cuts and printed matter as shown in "Complainant's Exhibit A'"—page 69, correctly represent the spring manufactured and sold by the defendants, as intended to be attached to the gearing of vehicles by those to whom they sell springs, or the manner in which they intend their springs to be attached to and used in connection with vehicle gears by the manufacturers who may use said springs; and that said advertisements were authorized by the defendants.

That copies of all assignments may be offered by either party prior to the hearing of the cause, subject to be corrected by a comparison with the original or certified copies, and the same shall

have the same force and effect as though the originals or certified copies had been introduced.

Dated at St. Louis, Missouri, this 31st day of January, 1887.

WM. M. ECCLES,
Attorney and Counsel for Complainant.

GEO. J. MURRAY,
Solicitor, Counsel for Defendant.

57 In the Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity. No. 3853.

STATE OF MISSOURI, *City of St. Louis,* } ss:

I hereby certify that on the 31st day of January, A. D. 1887, before me, Alfrode A. Paxson, a notary public, in and for the city of St. Louis, in the State of Missouri, at the office of William M. Eccles, corner of Broadway and Olive street, in the city of St. Louis, State of Missouri, personally appeared, pursuant to the notice hereto annexed, between the hours of 10 o'clock in the forenoon, and 5 o'clock in the afternoon, the witness, Zenas Varney, named in said notice, and William M. Eccles, Esq., appeared as counsel for complainant, and G. J. Murray, Esq., appeared as counsel for respondents, and the said Zenas Varney (the witness) being by me first duly cautioned and sworn to testify the whole truth, and being carefully examined, deposed and said as appears by the deposition hereto annexed.

And I further certify that the said deposition was then and there reduced to writing by me, and was, after it had been reduced to writing, subscribed by the witness, and the same has been retained by me for the purpose of sealing up and directing the same to the clerk of the court as required by law.

58 And I further certify that I am not of counsel or attorney to either of the parties, nor am I interested in the event of the cause.

And I further certify that the fee for taking said deposition, $10.00, has been paid to me by the complainant, and the same is just and reasonable.

In testimony whereof, I have hereunto set my hand and official seal at the city of St. Louis, in the State of Missouri, this 31st day of January, 1887.

[SEAL.] A. A. PAXSON,
Notary Public.

59–271 And afterwards, to wit, on the 21st day of March, A. D. 1887, the following depositions were filed in the clerk's office of said court, clothed in the words & figures following, to wit:

Deposition- of Wm. H. Stickle et al.

* * * * * * *

W. H. Sloan, Printer, Cincinnati.] [*July, 1887.*

CIRCUIT COURT OF THE UNITED STATES.

Southern District of Ohio.—Western Division.

HENRY TIMKEN,

vs.

T. D. OLIN, and E. D. OLIN, composing the firm of T. D. OLIN & CO.

IN EQUITY No. 3853.

The complainant will take notice that the defendants will examine witnesses in the above named cause, under the 67th Rule in Equity as amended, before David S. Oliver Esq., Notary Public and acting special Examiner, at the office of Geo. J. Murray Esq., Room 28 Wiggins Block, Cincinnati, Ohio, on Wednesday the 23rd. day of February 1887, beginning said examination at 10 o'clock A. M. of said day, and continuing from day to day until completed.

GEO. J. MURRAY,
Solicitor for Def'ts.

Received copy,
February 19, 1887.

WM. HUBBELL FISHER,
Solicitor for Complt.

W. H. Stickle

CIRCUIT COURT OF THE UNITED STATES.

Southern District of Ohio.— Western Division.

HENRY TIMKEN, vs. T. D. OLIN and E. D. OLIN composing the firm of T. D. OLIN and Co.	}	IN EQUITY No. 3853.

Depositions taken before me, David S. Oliver, a Notary Public in and for Hamilton County, Ohio, on behalf of T. D. and E. D. Olin, pursuant to the notice hereto annexed and at the time and place named therein.

Present, William M. Eccles on behalf of Henry Timken, and George J. Murray on behalf of T. D. and E. D. Olin.

Met at 10 o'clock a. m., Wednesday, February 23, 1887.

William H. Stickle, being duly sworn, deposes and says as follows:

State your name, age, residence and occupation.

William H. Stickle. Age, 48 years. Reside in Terre Haute, Indiana. I am a carriage maker.

Q. 1. Are you the same William H. Stickle who is the inventor and patentee of the invention shown, described and claimed in letters patent No. 246,571 of the United States?

Complainants by their attorneys object to the testimony of the witness, and to the witness' testifying in this case for the reason that his name is not set up in the answer as a per-

son having knowledge of the prior state of the art, and for the further reason that it is irrelevant and incompetent testimony.

A. Yes, sir.

Q. 2. Please state when you conceived the invention described in said letters patent, when you explained it to others and when you first reduced it to practice.

Objected to as irrelevant.

A. During the summer of 1879, if my memory serves me right, I conceived the idea of the invention. It was in 1879, if my memory serves me right, that I explained it to another party. I reduced it to practice, in a practical form, that is, had springs made, during the latter part of 1879 or the first part of 1880.

Q. 3. Please state just what you did at the times named in your previous answer. Also state what, if any, reasons you have for believing the facts stated in your former answer to have taken place at the dates named. In short, give a full history of your invention from the date of its conception up to the time you filed your application for the patent before referred to.

Objected to for the reason that it is irrelevant and for the further reason that it calls for the state of the art and a prior use not set up in the answer.

A. In 1878 I conceived and got up a patent known as the lever side bar spring. That patent was granted in March, 1879. After proceeding with that for a time of three or four months, probably, I ascertained the fact that it would be impracticable. I then suggested to my partner that we drop the lever spring and take up this one. I explained to him by a draft this spring here with a crab or coupling. Then he objected to having anything to do with this as he appeared to be thoroughly satisfied with the success of the first spring. Not being in a condition to carry this through myself I let it drop until the date of application shown here.

Answer objected to as irrelevant matter.

Q. 5. When did you have the first set of springs made, by whom, and when were they tested?

Objected to as irrelevant.

A. If my memory serves me right they were made by

George Cooper of Cleveland, Ohio. There are two spring companies there and I will not swear positively which one it was, as I bought goods from both companies. If my memory serves me right again I bought the goods some time between the latter part of 1880 and the fore part of 1881. They were tested immediately after being bought.

Objected to because the answer tends to prove a prior use not set up in the answer, and because irrelevant.

Q. 6. What, if any difference was there between the springs you first conceived and made, and the springs shown and described in the Stickle patent before referred to?

A. There is no difference with the exception of the adjustable holes in the coupling.

CROSS-EXAMINATION.

X-Q. 7. When was it that you first constructed a spring with these adjustable holes in the coupling?

A. Some time during the latter part of 1880 and the fore part of 1881.

X-Q. 8. From whom did you get the castings which you used to construct this first spring with the adjustable holes?

A. They were bought from the Pioneer Brass Works of Indianapolis, Indiana, if my memory serves me right.

X-Q. 9. Are you certain they were bought of the Pioneer Brass Works of Indianapolis?

A. I do not remember having bought any from any other company, of the brass.

X Q. 10. Then the first coupling was made of brass, and not of cast or malleable Iron, was it?

A. I do not remember ever of having bought any of cast or malleable iron.

X-Q. 11. Then you made, all you made or had made, of brass?

A. I do not remember that I ever bought or had any of iron, only as I bought with springs that I purchased from Mr. Olin.

X-Q. 12. Are you still engaged, personally or through others in using or selling this spring.

A. Not at present.

X-Q. 13. How sure are you that the first couplings you bought were from the brass company in Indianapolis?

A. In my working in improvements of various kinds I generally find it more convenient to have them made from brass than iron.

X-Q. 14. Is that what makes you sure you had them made at said brass company?

A. No. Not that alone. I generally find manufacturers in malleable iron not very desirous of little jobs of that kind, and consequently I apply to brass works, as they are generally in the line of small job work. Again brass is somewhat easier worked than iron, in making alterations.

X-Q. 15. Is that all the reason that makes you think you had them done there?

A. No. I remember of having bills for brass work presented for payment from that company.

X Q. 16. You had other brass work done there from time to time.

A. Yes, sir.

X-Q. 17. Do you know whether this was done iu December, 1880 or not?

A. If my memory serves me right, it was done in the latter part of 1880, or the fore part of 1881.

X-Q. 18. Then you do not know whether or not it was done in December, 1880.

A. I could not positively say whether the latter part of 1880 or fore part of 1881. I have the bills, and they will show the dates for themselves.

X-Q. 19. You mean when you say "if your memory serves you right" that your memory sometimes fails you, does it not?

A. Drawing from memory alone, of course, a man would be liable to miss it sometimes.

X-Q. 20. You have testified from memory alone in everything to which you have testified today, except as to the patent, which was before you, have you not?

A. I base my dates as closely as possible upon the patent upon a spring I took out previously to this one, and a con-

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versation I had with my partner in regard to dropping the former and taking up the latter.

X-Q. 21. What was the reason this former patent would not work?

A. On account of a failure of my partner, a blacksmith, to get the temper correctly as well as to unite the steel and iron portions perfectly. Consequently when compressed with weight, being settled, they were too hard or too soft, would snap when too hard, and straighten out when too soft, consequently there was no action.

X-Q. 22. Consequently you failed to get the trade on them, and abandoned them?

A. After manufacturing a few I made the discovery of the difficulties we would have to overcome, and I did not believe it possible to overcome them to an extent that would justify us to enter into the extensive manufacture of them.

X-Q. 23. Do you know the date of this patent of the lever spring?

A. March 18th, 1879, I believe.

X-Q. 24. How long did you manufacture that spring with your partner after the date of the patent?

A. I could not say exactly.

X-Q. 25. Can you approximate?

A. Probably a year, such quantities as we could make at an ordinary blacksmith forge at odd times.

X-Q. 26. Did you spend any great portion of your time in the manufacture and sale of that spring during that time?

A. No, sir. The reason why we did not was that I had made the discovery of the impracticable workings of it which brought a division in the opinions of myself and partner as to the success of the spring, he favoring the manufacture while I was opposed to it, the result being, very few were made.

X-Q. 27. You, nevertheless, were helping to introduce the spring, were you not?

A. At the start I did what I could to introduce it, until I became satisfied that it would not do the work.

X-Q. 28. How long after you began to manufacture the spring was it that you became satisfied that it would not work?

A. I could not say.

X-Q. 29. Do you think it was six months?

A. Somewhere in the neighborhood, probably.

X-Q. 30. The springs themselves that you ordered from Cleveland were springs exactly in shape and form like the Timken spring, were they not?

A. No, sir.

X-Q. 31. I mean the steel part of the spring, not the whole combination.

A. No, sir.

X-Q. 32. In what particular did they differ?

A. Mr. Timken's spring starts from the side bar on the one side, reaching to the opposite side, there connecting with the sill of the body, and vice versa, forming a pair of springs, while the spring here patented by W. H. Stickle does not connect with the body proper.

X-Q. 33. What does this spring connect with?

A. It connects with the spring bar.

X-Q. 34. What is the shape of that bar.

A. Any form that a man's taste might direct him to use.

X-Q. 35. What is a truss bar?

A. Anything that would be used to support a weight, the springs being confined to the center. That is what I would call a truss bar, whether I am right or not.

X-Q. 36. While you were manufacturing these Stickle springs did you ever attach them to the bar A?

Question objected to unless witness is handed the copy of patent.

A. I never manufactured any, only a sample set.

X Q. 37. In your sample set did you use a straight wooden bar to attach the coupling to, or did you use the truss bar C shown in your patent?

A. The bar was beveled at each end to reduce the thickness at the ends and to give it a lighter appearing form than if it was an entirely straight bar. The object was to use a bar of this form on bodies that had the bottom on the bottom of the sill. Had I manufactured them, I should have made some of the bars thick enough at the end to have notched

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them in so that the main portion of the bar would have rested against the bottom when they are put on top of the sill, allowing a lip to extend out to lap under the sill by which means we would have attached the end of the bar and the sill together by a bolt or bolts.

X-Q. 38. Then in your specimen that you made you dispensed with the iron truss bar C as shown in your patent, and substituted a wooden bar tapered at the ends, and to which you bolted the coupling or crab holding your springs?

Objected to as misleading, as it does not appear from the patent that there was an iron truss bar, or that the truss bar used by the witness was different from the one described in the patent.

A. I contend and labor under the opinion that I had a perfect right to use either wood or iron, while in some cases one purpose might suit better than the other so long as either sustains the weight they were intended for, and gives the application to the body.

X-Q. 39. Then you think that the truss bar C, as described in your patent is the same as a wooden bar tapered at both ends?

A. I do not remember whether the truss bar is designated as C in the patent or not.

Plaintiff's attorney here hands witness copy of patent and requests him to look and see whether the truss bar is marked C.

A. I find the truss bar is marked C.

X-Q. 40. Question repeated.

A. The department at Washington does not say in their specifications whether I shall use a one-inch, two-inch or six-inch rise in my bar from the coupling, I then claim the right, so long as I have not myself indicated how much rise it shall have in my drawing, to use as much rise as I may desire, or the job for which it is intended may require. Consequently I may use any sweep that I please in forming these bars. There can be sweeps got from both wood and iron. The bar spoken of previously tapering from the center out to a point, keeping in form to a greater or less degree of the spring shown in the Stickle patent of August, 1881.

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X-Q. 41. Did not the department at Washington refer you to a patent that had a straight wooden bar to which the springs were attached near the center, in place of your truss bar C?

A. Not to my recollection.

X-Q. 42. How did it come when you put up this specimen of which you speak that you did not use an iron truss bar as shown in your patent?

Objected to because the patent does not mention an iron cross bar, and hence the question is misleading.

A. I never made any claim. I believe that I would use iron or wood specially. I only spoke of a truss bar.

X-Q. 43. Now, will you tell me why you did not cut your wooden bar down in the center?

A. Because I did not deem it necessary on all occasions. The form of the job did not require it.

X-Q. 44. Why did you show your truss bar as bent down in the center if it might be made of wood?

A. So as it could be applied to different shapes of bottoms.

X-Q. 45. Are there any bottoms that would require the truss bar to be bent down in the middle as shown in your drawings?

A. There are some made, yes. The majority only require a sufficient amount of sweep that we can get in wood conveniently.

X-Q. 46. Where did you ever see a body made with the bottom sagging down so as to necessitate your making the truss bar bent as shown in your drawing?

A. My knowledge of the business would make me say there is no sagging down, but an elevation of the hind part of the bottom in order to give less depth of side quarters. The front and hind springs being on a level, it necessarily follows there must be enough sweep or upward inclination in the bar of the hind spring to correspond with the elevation in the hind part of the body. There are styles known as the phaeton upon which these springs are sometimes used, requiring a bar of greater sweep, manufactured by many of the manufacturers in the country.

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X Q. 47. A wooden bar beveled on the under side would do the same thing, would it not?

A. Providing it had enough elevation on the arms after leaving the coupling.

X-Q. 48. Would not a solid wooden bar straight on the upper edge and beveled on the lower edge from the center towards the ends accomplish the same thing that your bent bar C does in your patent?

A. I presume it would be discretionary with the person doing the work as to which he would use.

X-Q. 49. Question repeated.

A. In one sense it would and in another it would not, depending upon the taste of the manufacturer.

X-Q. 50. What was the name of the party whom you bought the spring of in Cleveland, Ohio?

A. As previously stated, I could not say positively, but can in the future, I think, produce the bill showing from whom they were purchased.

Adjourned to 2 o'clock p. m. same day.

X-Q. 51. In what sense would it and in what sense would it not perform the same function as the bar C in your patent?

A. It would probably have to be somewhat more cumbersome than if the bar were made of iron, that is, to the eye, the appearance of the thing.

X-Q. 52. Are you familiar, or were you familiar at the time you made this specimen you speak of, with other cross spring vehicles made in the trade?

A. Yes, sir. Considerably so.

X-Q. 53. Were you familiar with the spring known in the trade as the "Timken Spring," at that time.

A. Yes, sir.

X-Q. 54. Were you familiar with the spring known as "The Automatic Spring" at that time?

A. No, sir.

X-Q. 55. Were you familiar with the cross-spring known as "the Saladee patent cross-spring," at that time?

A. If I was I do not remember it. I know there was one that ceased to exist afterwards, on the market at least.

X-Q. 56. Do you know who was running that Saladee spring in this state?

A. No, sir.

X-Q. 57. Do you not know that the Columbus Buggy Co., of Columbus, Ohio, were?

A. No, sir.

X-Q. 58. Don't you know that the Timken spring, as manufactured and sold to the trade was attached to a wooden cross bar?

A. I never saw one attached to a wooden cross bar and offered for sale.

X-Q. 59. Don't you know that ever since he commenced manufacturing his springs and selling them that they have been attached to a wooden cross bar, which is set in the body when the springs are attached to a vehicle?

A. I have seen all springs of Timken's that were used by manufacturers, have the bar placed in bottom of the body of the vehicle by the manufacturers themselves.

X Q. 60. And this bar served to hold the springs, did it not?

A. Not entirely. One leaf of the spring projecting out beyond the bar by which the spring was attached to the sill of the body.

X-Q. 61. But it was attached to this bar, each spring by two bolts in all you ever saw, was it not?

A. Yes, sir. They were attached at opposite ends of the bars by two bolts not in the center.

X-Q. 62. And you say you never saw the Saladee patent before you made your patent?

A. I couldn't say to a certainty that I ever saw a spring called the Saladee spring. I have seen representations of them.

X-Q. 63. When was the earliest that you remember seeing representations of it?

A. I couldn't say.

X-Q. 64. Was it before or after you made application for this last patent?

A. I couldn't say.

X-Q. 65. What is your best recollection.

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A. My best recollection is that there was a spring called the Saladee spring since the advent of side bar springs in the market.

X-Q.66. But what is your best recollection as to whether this spring was in the market before or after you made application for your patent?

A. I never saw it in the market.

X Q. 67. What is your best recollection whether you saw the representation of the Saladee patent before or after you made your last application for a patent.

A. I cannot say.

X Q. 68. Question repeated.

Objected to because question has already been answered, and further it is indefinite because, 1st. The particular spring inquired about is not described in the question, and 2nd. Because it appears from the pleadings in this cause that there are more than one Saladee patent spring.

A. Being under oath to speak the truth, I could not say.

X Q. 69. Can you tell where you saw it first?

A. I cannot. Every few days circulars and cards arrive for the various shops throughout the country from the manufacturers of springs for side bar purposes, that keep me in intimate acquaintance with the majority of springs. I cannot keep an intimate acquaintance with them.

X-Q. 70. Did you send a drawing or a sketch to your attorneys when they made an application for this patent of August, 1881, or did you send a model?

A. I forget whether I sent them a drawing, but I did send a model showing the application of the spring to the bar.

X-Q. 71. Did that model have the bar made of iron or wood?

A. Iron, I believe, in order to make it appear a little more tasty.

X Q. 72. Was there a running gear as a part of that model, or was it only two springs with the bar and the wooden plate and the coupling?

A. There was a sectional portion of the body represent-

ing the bottom portion. There were what would be called two pairs of springs, one front and one back, two side bars, sectional portions of the axle caps to which the side bars were attached, the springs connecting with the side bar connected at the center by a coupling, and that to the truss bar.

X Q. 73. Was the truss bar bent as shown in this drawing?

A. It was bent some, but I think not near so much as represented by the drawing.

X-Q. 74. Was the hind set of springs connected to the axle as shown in this drawing?

A. I do not remember that the drawing ever showed any thing of the kind. Again it would be unpractical as a side-bar cross-spring in keeping with the side-bar work on the market to have it connected with the axle.

X-Q. 75. Then I understand you to say that in side-bar vehicles cross-springs attached at their smaller ends to the axle are impracticable as side-bar vehicles are now made?

A. I never saw any attached that way.

X-Q. 76. Question repeated.

A. I can only answer the question by saying this: that the cross side-bar springs running parallel with the axles, I deem it not practical to make connection with the axle and come under the head of side bar springs.

X-Q. 77. Before the time you applied for this patent the Timken spring had had a big run in the trade, had it not, and has had ever since, and is having now.

A. I do not know the extent to which they were selling. I know they were being offered on the market. I know that they had quite a large sale according to the statements of the dealers, and at the present, think there are springs in the market with less objectionable features than the Timken springs.

X-Q. 78 And that are causing by their sale Mr. Timken to lose a large part of his trade and profits?

A. I do not know anything about the loss of profits of Mr. Timken on springs.

X-Q. 79. Do you not know that the sale of your springs by the Olins has damaged the sale of the Timken spring?

A. H. Stickle

A. I am not prepared to say to what extent this is the case.

X-Q. 80. Are you interested pecuniarily in this patent or the proceeds of it as sold by the Olin brothers?

A. Not one cent.

X-Q. 81. Have you, since the adjournment found out the name of the party that you bought the springs of in Cleveland?

A. It would be simply impossible for me to have done so, as the bills are at my home in Terre Haute, Indiana.

X-Q. 82. Which would you rather see win in this case, complainant or defendants?

A. Well, since I have to father the spring, I do not care to adopt any in its stead, having full confidence in some of its qualities over the Timken spring.

X-Q. 83. Question repeated.

A. Leaving the men out of question and taking the springs on their merits, I would prefer the Stickle spring.

X-Q. 84. Question repeated.

A. Having no interest in Mr. Timken or Mr. Olin, I deem my preference for men, my individual property or right without making it manifest.

X-Q. 85. Then you refuse to say which you would rather see win, complainant or defendants?

Objected to as having been fully answered.

A. I do not know that it can be exacted that I should state my preference for one over the other.

X-Q. 86. In this patent of August 30th, 1881, did you read the specifications before you signed them?

A. I presume I did.

X-Q. 87. What do you claim you invented in that invention?

Objected to because the patent speaks for itself. The specifications and claims in connection with the drawings fully answer the question.

A. I claim that I invented the coupling with the adjustable features, with the flanges running parallel with the springs and holding the springs in line with a projecting lip on either side of the coupling, and part of the same by which the springs,

the coupling and the truss bar are all connected by a clip passing entirely around the bar top and sides with the tines of the clip passing through the lugs on the side of the coupling. The said tines united by which we are enabled with a wrench to draw all firmly at the center, thereby avoiding all action of said springs beyond their centers, giving elasticity equal to the entire length of the springs from side-bar to side-bar. In addition to this the said springs at the butt ends have two holes separated one inch apart from center to center. In connection with the three holes in the coupling, I am enabled to make these springs adjustable by half inches to each side with an entire adjustable capacity of two inches wider or narrower, by which they can be readily adopted to various widths of gearings The bars are made of lengths suitable for the purpose for which intended as well as the form of vehicle. This necessitates but one bolt at each end of the spring. The said clip bending the springs at the center does away with the objectionable features of a bolt or bolts passing through the spring at or near the center, objectionable on account of the weakness it entails upon the spring by having a hole there.

X-Q. 88. Why did you lay the springs side by side, and why did you not butt them up end to end?

A. It seemed to suit my purpose better by laying them side by side instead of butting them end to end. By so doing I could connect both springs at the centers with one clip and save the expense of two additional bolts or clips.

X-Q. 89 Did you not do it also to get length of spring?

A. I necessarily must get more length of spring by the passing and clipping tight at the center, but I did not gain any elasticity beyond the center thereby.

X-Q 90. Why did you not make the two springs in one and attach them to the truss bar C?

A. The same complaint probably might have arisen from Brewster, of New York as now offered by Mr. Timken.

X-Q. 91. Then you did not make it in one spring and attach it at the center because you were afraid thereby you would infringe Brewster of New York, and you did not extend the spring part beyond the center because you were afraid if you did that you would infringe Timken, consequently to

avoid infringing both of them, as you thought, you would run the spring part of the springs just to the center. and there make it stop, would you not?

A. More than likely had I have made the spring in one and attached it at the center to the bar and continued it each way, connecting it with the side-bars, it would have been interpreted as an infringement on Brewster's springs, but instead I have continued them in two separate springs connected at center solidly by clip, thereby avoiding elasticity beyond the center, having no connection whatever between the springs and the sills of the body. Mr. Timken makes his special claims of fine riding qualities of said springs upon their extreme length, giving a free elastic action at the center where mine is dead.

X-Q. 92. I ask you again if you did not stop the elasticity of your spring at the center to avoid the infringement of Timken's patent, as you thought?

Objected to as not proper cross-examination, and counsel is notified that the witness will be considered as his own.

A. I stopped the elasticity of my spring at the center to avoid objectionable features that the Timken springs contained. Those features, from their extreme elasticity allowed the job, buggy or wagon, when unevenly loaded to swag down at the side or rear, throwing the job out of nice tidy carriage shape, also to reduce the weight of the springs from three to seven pounds in weight, and at the same time to give the job a position nearer perfection when loaded. By so reducing the weight of the spring, we obtained desirable riding qualities at less cost of spring.

X-Q. 93. You knew all these advantages over the Timken spring at the time you got up the first specimen of your sping, did you not, and at the time you made your first application for a patent, did you not?

A. I certainly did, or I should not have made them. Knowing the defective points of the Timken spring, I of course tried to overcome their entire deficiencies.

X-Q. 94. Will you swear that you did not stop your spring portion at the middle to avoid infringing the Timken patent?

A. I will swear that I firmly believed that I was not infringing the Timken patent when I stopped my spring's action at the center.

X.Q. 95. But will you swear that to avoid infringing the Timken spring was not one of your objects in stopping your spring's action at the center?

A. No, sir. I won't

X-Q. 96. You had, then, studied the Timken spring and thoroughly investigated all its defects prior to making your application for a patent, and prior to your invention of this spring?

A. Most certainly.

X-Q. 97. And had been told or had come to the conclusion yourself that if the spring portion did not go beyond the center you would not infringe the Timken patent, although the spring portion of each spring might come right up to the center?

A. Knowing that Mr. Timken made claim to excellent riding qualities of his springs on account of their extreme length and free action at the center, and that I would be creating a new form of mechanism with different riding qualities from Mr. Timken's springs by stopping mine at the center sufficiently original to enable me to procure a patent on my improvement.

X-Q. 98. Did you ever discuss the scope of the Timken patent with any one prior to your applying for a patent?

A. I presume I did, as it was quite natural for a person to try to understand the ground they stand on before proceeding in any enterprise.

X-Q. 99. Do you remember any one you discussed it with?

A. I could not call any one to memory at present.

X-Q. 100. Is it not a fact that a great many people, yourself with others, since the great popularity of the Timken spring, have been trying to make a spring, which, while not infringing the Timken spring will look like, and sell for the Timken spring.

A. I cannot speak for others. As for myself I cared nothing about its appearing like the Timken spring. What

I desired to obtain was desirable riding qualities, the adjustable qualities and the neat or trim carriage when loaded. By the adjustable qualities, making the springs much more desirable than others to the manufacturers because the same set of springs could be applied to different widths of jobs.

X-Q. 101. You came here voluntarily to testify for the defendants, did you not, without a subpoena?

A I came here to testify on the solicitation of Mr. Olin, supposing of course if I did not come that way that I would have to come on a subpoena.

X-Q. 102. You came all the way from Terra Haute, did you not, for that purpose?

A. Yes, sir.

X-Q. 103. You do not like Henry Timken, do you?

A. I do not see any reason why I should dislike him. He has never done me any harm.

X-Q. 104. Do you mean to say that you like him or dislike him, or that you have no feeling toward him at all?

A. I have no interest in Mr. Timken and nothing against him, no more than I have against any person in this room and have no more cause to dislike him than any gentleman in this room.

X-Q. 105. In that specimen which you made was the cross-bar to which the crab was attached straight on the upper side, or was it hollowed out in the center.

A. I do not understand to what you refer.

X-Q. 106. I referred to the full sized specimen you made, and not the model.

A. I rather think it was hollowed out somewhat in order to span the bottom strip that we usually put on the bottom of buggies which was usually about a quarter of an inch thick to support the bottom boards of the buggy. The bar was hollowed out on the top enough to receive this strip and let the bar rest on each side of the strip against the buggy bottom.

RE-DIRECT.

Q. 107. You have referred in your cross-examination to a certain conversation that took place, which, together with the dates of your patents enables you to fix the date when

you made your first set of springs in accordance with your patent of August 30th, 1881. Please give that conversation as nearly as you can recollect it, stating when and with whom you had it.

A. I will commence back in answer to that question to a patent which I procured for what is called, I believe, the Stickle lever side-bar spring, patented March 18th, I believe, 1879. Myself and partner started to manufacture this spring on or about the time the patent was allowed, and so continued for a few months, making the discovery that the thing was not altogether practicable in manufacturing in the shop on the anvil, and in the failure to procure the temper necessary to the success, and the objection from some people who had used the spring. I suggested to my partner that we cease operations on that, as we had not spent much money on it yet and take in its place one that I had conceived and drawn up in pencil and fully explained the working qualities and advantages of the spring over the one that we had been manufacturing. We were divided on that as he objected to making the change. Knowing the failure of the lever springs, I ceased to give it any encouragement, and he objected to having anything to do with the spring I had suggested secondly. I thereupon let the thing lie dormant on what was now known as the Stickle spring until such time as I was sufficiently able to take out the patent myself, which occurred in August of 1881.

Q. 108. I understood you to say in the answer to which I referred in the former question that you were able to fix the date when you made the invention set forth in your 1881 patent, and the date when you first made the spring by a conversation which took place when you tested said spring. It was to this conversation that I particularly referred. With this explanation please answer the former question which the Notary will read to you.

A. The conversation referred to, if my memory serves me right, was with one of the hands in the shop. It was on or about the time I procured the patent on springs in 1881. Talking to this hand, a remark that I made to him that Mr. Whittaker, my partner, failing to take hold with me in patenting the spring, had delayed me in applying for the patent os much as a year or more.

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Q. 109. You have stated that the first springs which you had made at Cleveland were not shaped like the Timken spring. Please state how they were shaped, and if they differred from the spring shown in your 1881 patent or the Stickle spring, now made by the Olin brothers, state wherein they differed.

A. The spring, in the first place is not near so long as Mr. Timken's. They have not the projecting leaf at the butt end as Mr. Timken's have. The two holes in the springs for applying them to the job are close out to the butt end of the spring. The outside hole farthest from the side bar being about a half inch in from the end. The next is one inch in from that. The balance of the spring has the usual form of springs of that nature.

Q. 110. The question asked you what if any difference there was between the springs made at Cleveland and the springs manufactured now by T. D. Olin & Co., and also the spring shown in your 1881 patent. I refer to the spring alone and not to the coupling or clip.

A. If there is any difference between the springs of Olin's make to-day and the ones I had made as a sample set, I do not know of it. I refer to the springs themselves.

WILLIAM H. STICKLE.

Adjourned to 10 o'clock a. m., Thursday, February 24th, 1887.

Met pursuant to adjournment. Present, same parties.

S. E, Kierolf, being duly sworn deposes and says as follows:

Q. 1. State your name, age, residence and occupation.

A. S. E. Kierolf. Age, 53 years. Residence, Jackson, Tennessee. Am a carriage maker.

Q. 2. How long have you resided at Jackson, Tennessee, and where did you live before moving there?

A. About three months. I lived in Dyer county, seven miles from Dyersburg. I lived in Dyer county about one year. I went there from Indianapolis. I lived in Indianapolis, Indiana, from June 27th, 1874. I resided there all the time until I went to Dyersburg in November, 1885.

A. E. Kiefolf

Q. 3. How long have you been engaged in the carriage business, both as workman and proprietor?

A. Last February was thirty-eight years.

Q. 4. Please examine the set of springs now shown you, and state if you know what the same represents. You may also state whether or not you have ever seen this particular set of springs before. If so, please state when and where.

A. I have examined them. They represent a pair of side bar buggy springs. I have seen them before, at my shop, No. 240 East Pearl street in Indianapolis. I saw them often.

Q. 5. When did you first see this identical set of springs at the place you have named in your prior answer?

A. In the spring of 1866.

Q. 6. I understood you to say in your prior answer that you saw this set of springs at your shop in Indianapolis and in a former answer you stated that you went to Indianapolis June 27th, 1874. Did you have a shop in Indianapolis in 1866?

Objected to because leading. The Notary will please read to the witness his answers to questions two and five.

A. No, sir. I did not.

Q. 7. Then please explain how you happened to see these springs in your shop at Indianapolis in 1866.

A. I did not see them in 1866, but in 1877. These springs I first saw in the spring of 1877.

Q. 8. Please state who designed and made these springs.

A. I designed them and had them made in my shop.

Q. 9. Please state for what purpose they were designed and made, and where they have been, if you know, from the time they were made up to the present time. State fully their history, if you know it from the spring of 1877 up to date.

Objected to as irrelevant.

A. I applied them to a body that I ordered to be made with spring bars especially arranged for this purpose, in December, 1876. I was detained in making the body until early spring. I then applied these springs to the body and had the buggy ironed off in May or the first of June, 1877. I was not able to finish the buggy, being in circumstances that would not permit me, and I had the body attached to the

gear and carried up into my paint shop where it stayed until the winter of 1877. In the fall of 1877, about October, Mr. Jos. W. Buchanan, of Indianapolis proffered to trade a horse with me for the buggy, with forty dollars boot to be applied to my shop rent. I rented from his brother, James M. Buchanan. We spoke frequently during that winter of trading. On the 12th of February 1878 we traded and he applied forty dollars on my rent and gave me the horse. He delivered the horse to me a few days afterwards, two or three days. I finished his buggy for him in the spring or summer of 1878. I used the buggy on several occasions. When he traded for the buggy he objected somewhat on account of the springs. He had never seen that style of spring on any other buggy. I told him if they did not give satisfaction that I would put on the Brewster spring, which was then the style. I told him that I wanted him to test the springs, and if they proved a success, that I would apply for a patent when I was able. He used it several years without complaint, but afterwards applied what is known as the Timken spring, to the same buggy. These springs were made from old springs and one of the leaves broke. When he took these springs off I asked him to let me have them. I went to his shop and got them and have had them continuously in my possession until I delivered them to Mr. E. D. Olin.

[Witness here goes to refer to something. After going into the adjoining room, witness returns and says: "March 19th, 1886."]

I went into the adjoining room to examine a receipt Mr. Olin had given me for these springs, the date of the receipt which is as given. I marked these springs, when I delivered them to Mr. Olin, with the letter K with a center punch, so I would better know them should I be called on to prove them. I set them on the bar this morning just as I had them arranged on the bar of the buggy.

Answer objected to as irrelevant and not responsive to the issues.

Q. 10. You say you put the springs on the truss bar this morning, and that they are the same as applied to the Buchanan buggy at first. How do you know that the clip

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bars are in the same position as they occupied on the Buchanan buggy.

Objected to as leading and as assuming a fact not proven.

A. Because I personally superintended the adjusting of the springs then and placed the clip bars in front of the rivets so that the spring would not break at the rivet holes. Also I set them apart so that the springs would not rub the opposite spring in its elastic motion. I set the clips as far back on the spring as I could to give the spring elasticity. These springs were not made as long as I wanted them made, in consequence of holes being in the old spring steel that I used. They were made from old elliptic springs and other pieces of springs I had in the shop for the purpose of testing the springs.

The springs referred to by the witness are hereby offered in evidence and the Notary will mark the same, "Defendants' Exhibit. Kierolf Springs."

Complainant objects as not being responsive to the issues.

Defendants' counsel also offers in evidence a printed copy of the specifications and drawings of the letters-patent No 246,571 granted to W. H. Stickle, August 30th, 1881, which was referred to by the witness Stickle. Notary will mark the same "Defendants' Exhibit. Stickle original patent of August 30th, 1881."

Complainant objects because the evidence is not responsive to the issues.

Printed patent office copy of specifications and drawings of letters-patent No. 213,466 granted Wm H. Stickle for vehicle springs dated March 17th, 1879 to be marked "Defendants' Exhibit. Stickle patent of March 17th, 1879."

Complainant objects for the reason that the same is not set up in the answer nor the amended answer and is not responsive to the issue.

Q. 11. Please refer again to "Defendants' Exhibit, Kierolf springs," and state precisely what parts of that exhibit you delivered to Mr. E. D. Olin, March 19th, 1886.

A. The two springs riveted together and attached to the side bar shackles.

Q. 12. Examine these springs carefully and see if you find on them the letter K as they were marked by you.

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A. I did, and it is there.

Q. 13. Please state whether or not you found any mark or marks on the under side of the springs when you attached them to the bar this morning that would indicate where the clip bars rested when said springs were attached to the Buchanan buggy.

A. I examined the springs closely and saw marks of the old clip bars, and placed these just at the same place so near as I could possibly get them, which will not vary an eighth of an inch from the clip bars that crossed the springs when they were first put on.

Q. 14. You have stated that when you put these springs upon the Buchanan buggy, you wanted to have them thoroughly tested, and if the test was satisfactory you would apply for a patent upon them, In this connection you may state whether you consider yourself the inventor of such a spring as is represented by "Exhibit. Kierolf Springs."

Objected to as irrelevant and not responsive to the issues.

A. I do,

Q. 15. When did you make the invention embodied in "Defendant's Exhibit. Kierolf Springs?" State fully when and where you made it, and give a history of your invention from the time you conceived it up to the springs used on the Buchanan buggy.

Objected to as calling for a conclusion of law, and for facts not responsive to the issue.

A. If the word "invention" means the formation of the spring in my mind, and its application, then I invented it prior to the year 1862, I mean 1872.

Plaintiff objects to the answer being put down by the Notary as "1862, I mean 1872," for the reason that the witness said "1862—1872," and then "1862," and the plaintiffs' counsel at the time requested the Notary to put it down as last stated, which he refused to do.

Defendants' counsel in sists that the witness did not say anything of the kind, and as the witness is under oath requests the Notary to ask the witness just what he did say.

A. I said "1862—1872." 1862 was a lapsus linguae.

The Notary here states that he placed on the record ex-

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actly what he understood the witness to say, and refused to put the answer down as requested by plaintiff's attorney because he did not believe the witness gave his answer in that form.

Q. 16. State particularly what you did in relation to the invention in 1872, and all that you did up to the time you made the springs, "Defendants' Exhibit. Kierolf Springs," which were applied to the Buchanan buggy.

A. I worked for James MacQuillan in Louisville, a carriage maker, in the year 1872, and while there, Mr. MacQuillan had a no-top buggy built with side bars, with cross-springs under the bars and without springs between the body and bars, the body resting upon the central part of the bars by use of irons, making the bars weak at that part. After the buggy was finished and in the show-room during that year of 1872, Mr. MacQuillan was exhibiting it to a gentleman for the purpose of selling it, and the gentleman got into the buggy and broke both bars in two. I then proposed to a hand in the shop the feasibility of putting springs under the body at the front and rear end to support the bars or give them less strain. And I suggested springs to some of the hands and to Mr. MacQuillan, that would reach from the opposite sills of the buggy to the bar, but the general impression was that they would look bunglesome and heavy at the side of the buggy, the heavy ends. In the year 1874, I was doing baby buggy business on Massachusetts avenue, in Indianapolis, Indiana, and there I attempted but did not complete a side-bar baby buggy with springs crossing from the opposite bar to the sill. In 1875 I worked for George Lowe in Indianapolis, a carriage maker, and during that year I made several draughts of springs crossing similar to the spring known as the Timken spring. About the year 1875 or 1876 before I commenced business on Pearl street, I tried to get Mr. E. D. Olin to take one half of the spring and furnish the money to patent it, but he gave me no decisive answer. I would have tested these springs if I had had the money to have built a buggy and given them a proper test, but my financial matters were in such a condition that I was not able to patent it without involving myself in debt. I had two other sets of springs made

at my shop in the year 1877, the summer of the year, shorter than these and applied them to buggies which I sold or traded afterwards. I also gave Mr. Matlock, my painter, the privilege, at his request to make two sets of these springs, which he did.

Adjourned to 2 o'clock p. m. same day.

Met pursuant to adjournment. Present, same parties.

Q. 17, When were the other set of springs which you say were made in 1877 applied to a buggy, and what workman made them?

A. I think Mr. Fisher made one set, probably both sets. I cannot bring to mind when I applied them to a buggy, but I remember of having sold the buggy to a man in Rushville, Indiana, for one hundred dollars, cash. I have tried to bring his name to memory, but I cannot remember. I do not know just when that sale was made.

Q. 18. Can you approximate the time? Give your best recollection as to the time the sale was made to the man in Rushville, Indiana.

A. The fall of 1877 or the spring of 1878.

Q. 19. Do you know what became of the other set of springs which you say was made in the fall of 1877?

A. I have tried to bring it to mind but cannot remember,

Q. 20. Can you state whether Mr. Matlock made two sets of springs which you say you gave him the privilege of making? If he did, can you tell when they were used?

A. I saw one set that he had made, but do not know what became of them. I saw that set in the summer of 1877, or the first fall month.

Q. 21. Where did you see them, and in what condition were they when you saw them?

A. I saw them unattached to either bar or buggy, at my shop.

Q. 22. Did you ever make an application for a patent on springs as shown in "Defendants' Exhibit. Kierolf Springs," and if you did not, why not?

A. I never have. The reason was that I was not able to take that much money out of my business until after my attention was directed to a drawing of Mr. Timkens spring

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which had been patented. Since then I have not been able to ask for an interference, knowing that I did not have money enough to law Mr. Timken.

Q. 23. When was your attention directed to the drawing of Mr. Timken's spring, and how was it directed to it?

A. I do not know the exact time, but believe it to be the summer of 1878. My nephew, Wm. D. Kierolf, showed me a drawing of the spring from some circular or patent book or periodical, and he said, "Uncle, here is your spring that a man by the name of Timken in St. Louis has patented"

Complainant objects to that part of the answer, purporting to detail the conversation of Wm. D. Kierolf as hearsay.

Q. 24. How was Wm. D. Kierolf engaged at and prior to the time you say he showed you the draught of the Timken spring?

A. Wm. D. Kierolf became my ward on the 6th of April, 1877, and was an apprentice boy to learn the trade of carriage building, and worked with me in the shop.

Q. 25. Were the springs, "Defendants' Exhibit. Kierolf Springs," used on the front or back of the Buchanan buggy?

A. These were the front springs.

Q. 26. What became of the springs used on the back of that buggy, and you may state whether they differed in any respect from the springs shown in the exhibit?

A. One of the springs was broken and the other spring I loaned to the Columbus Buggy Co., to be delivered to me again. These back springs were better shaped than the front ones, and by laying one edgeways by the side of what is known as the Timken spring, they were very near the same shape. There was very little difference in the shape. except my spring was about three inches shorter.

Q. 27. How much longer than these springs were the hind springs, that is, how much further back would they come on the truss bar?

Objected to as leading.

A I do not remember. They were some longer I know, not a great deal. I do not think it was over an inch. When I measured the length of these springs I did not in my testimony include the upper leaf. I did not include the length of

the upper leaf that Mr. Timken puts there for the accommodation of different width bodies, but do mean in my testimony that the main leaves with the exception of the top were about three inches longer.

Q. 28. Did the curve of these hind springs differ in any respect from the curve in the exhibit, Kierolf, springs, or were the curves in both front and hind springs the same?

A. They did not materially differ.

CROSS- EXAMINATION.

X-Q. 29. When did you say that that vehicle was completed upon which you put these springs shown in the exhibit, meaning "Defendants' Exhibit. Kierolf Springs"

A. I did not say that it was completed. The question was not asked me, but I did complete it in the year 1878.

X-Q. 30. What time in the year 1878?

A. In the summer.

X-Q. 31. You say you worked for George Lowe, of Indianapolis. How long did you work for George Lowe?

A. I commenced work for George Lowe at his shop in October, 1874, and continued working for him until August, 1876, in steady employment. After that I done work for him occasionally, but not regularly.

X-Q. 32. After that did you work at his shop or at your own shop?

A. I worked at my own shop and occasionally for him as he needed my work.

X-Q. 33. You say you made several draughts of springs similar to the spring known as the Timken spring. What has become of those draughts?

A. Some of these draughts I drew with chalk on the cutting plank of my bench and sometimes with my pencil if a piece of blank paper was convenient. I only made rough sketches, and paid but little attention to the draught after I had explained it to the person for whom I drew it, consequently I did not save them.

X-Q. 34. Did any body else save them?

A. I do not know.

X-Q. 35. Were any of those sketches which you made at that time similar to the spring known as the Tilton spring?

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A. I never saw a sketeh of the Tilton spring to my remembrance until this morning.

X-Q. 36. Where did you see it this morning?

A. I did not see it this morning. I was mistaken. I thought you mean the Stickle spring when you asked the question.

X-Q. 37. These sketches which you made were simple sketches to illustrate an idea which you had in your head, and which you never had made a model of, nor a complete drawing, were they not?

A. Some of these sketches were simple sketches, some I drew by scale, one in particular that I now remember, to illustrate my invention.

X-Q. 38. Did you ever make more than one draught by scale to illustrate your invention before you put in on the running gear in 1877?

A. I suppose I have, because I generally draft such matters on a half inch scale.

X Q. 39. Do you know whether you did or not?

A. I can't say for certain. The one that I draughted is in a little blank book that I kept in my pocket for some time and am only certain of one in my remembrance from that fact.

X-Q. 40. When was that made?

A. While I was working for George Lowe.

X-Q. 41. Give us the month and year.

A. I can't do it, but it was draughted while I lived on St. Joe street.

X-Q. 42. How long did you carry it in your book?

A. I have no remembrance of how long.

X-Q. 43. Did you tear that book up or did you lose it?

A. I never tear up books, and consequently do not believe I tore it up, but think it is mis-placed or lost.

X-Q. 44. Have you made search for it?

A. I have.

X-Q. 45. How many views did that draught contain.

A. It only contained an end view.

X-Q. 46. Was it on a half inch scale?

A. I suppose so. I generally draught on a half inch scale.

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X-Q. 47, Well, do you know whether it was or not?

A. I do not know for certain.

X-Q. 48. How large was this memorandum book which it was in?

A. I do not know. I did not measure it.

X-Q. 49. Well, give us some idea of its dimensions. Was it a small memorandum book that you carry in your pocket?

A. I generally used these books to charge my work in, and as the items are sometimes long, I generally use books three or four inches wide and five or six inches long, My remembrance is that it was a book about six inches long by four, three and a half or four, just as large as I could get in my pocket.

X-Q. 50. Do you remember whether the draught was made in the front, middle or back part of the book?

A. It was made on the back fly leaf next to the back.

X-Q. 51. What do you mean by half inch scale?

A. Half inch to one foot, or half inch to two feet. Half inch to one foot is the way I generally draught it.

X-Q. 52. What way was that draught, half inch to one foot. or half inch to two feet?

A. I can't remember. I can't tell you whether I draughted it to half inch scale or not.

X-Q. 53. Was that sketch made lengthwise or crosswise of that book?

A. To my remembrance it was lengthwise.

X-Q. 54. Well, are you sure of it?

A. I do not remember. I am not sure, but so far as my remembrance goes it was lengthwise. I do not remember certainly.

X-Q. 55. About how long was it?

A. I do not remember, but it was a small sketch.

X-Q. 56. What is your best recollection as to its size?

A. Well, somewhere near an inch and a half I believe. To my remembrance it was considerably effaced the last time I saw it.

X-Q. 57. Now, if it was drawn on a half inch scale to the foot, and was an inch and a half long, that would make the full sized spring three feet long, would it not?

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A. It would.

X-Q. 58. Did that sketch show the side bars?

A. It did not, to my remembrance.

X-Q. 59. Did it show an axle?

A. It did not.

X-Q. 60. Did it show the end of the body?

A. It did not.

X-Q. 61. Did it show the clips at the ends of the springs?

A. It did not, because we did not use the clips at the ends of the springs. We used shackles, not clips.

X-Q. 62. Did it show the bolts?

A. I do not think it did. I do not remember.

X-Q. 63. Did it show the shackles at the end of the spring?

A. I do not think it did. It showed the curl at the end where the bolt goes through.

X-Q. 64. Did it show the hole in the end of the spring, or eye?

A. It might have exhibited the place for the hole by the curl which we always show when we draught a spring. The curl of the steel generally forms the eye of the spring.

X-Q. 65. Are you certain that it showed a hole in the end of the spring?

A. I am not.

X Q. 66. Did it show two springs or one?

A. It represented the two springs just as Mr. Timken's spring is represented in its draughts.

X-Q. 67. Did it show leaves in the spring, or one separate line for the springs?

A. I do not remember. I think the draught was too small to represent the leaves.

X-Q. 68. After you lost that book, how long was it before you made another draught on scale, if you ever made another?

A. I have no remembrance, but made them frequently.

X-Q. 69. What did you want to carry that draught in your book for if you made them frequently?

A. I can't tell. I often make draughts in my book—sketches because the blank leaves is the nearest approach to get a blank sheet of paper generally.

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X-Q. 70. That was in no sense a draught for a mechanic to take and work by, was it? In other words, it was not a working draught?

A. It was sufficient for any good mechanic to have made the spring by after he had ascertained the length it should be made.

X-Q. 71. I did not ask you for an opinion. I asked you if it was such a draught as is made for mechanics to work by, or a working draught.

Objected to as having been fully answered.

A. I never saw a working draught of a spring only where we want to get the true sweep of a broken spring to match.

X-Q. 72. Question repeated.

Objection repeated.

A. I never saw a spring draughted for a workman in my life, only where a spring was broken.

X-Q. 73. I do not mean for springs alone. I mean for everything. With this explanation the Notary will repeat the question.

Objected to for the reason before stated, and for the further reason that it indefinite and uncertain as to what is meant by the question.

A. I am not certain that I draughted it by the half inch scale, but only suppose I did.

X-Q. 74 Are you a draughtsman?

A. I am not to the full extent of the meaning.

X-Q. 75. Do you know what is meant by a working draught among mechanics?

A. I do.

X-Q. 76. Well, what is it?

A. It is a draught by scale.

X-Q. 77. Is that all the requisites for a working draught?

A. On some things it is, on others there may be other plans that I do not know.

X-Q. 78. On what things is it all that is necessary?

A. On an article square or beveled, I suppose.

X-Q. 79. Is that all?

A. I do not know.

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X-Q. 80. You do not know much about working draughts do you?

A. Not a great deal.

X-Q. 81. Did you ever draw a working draught for a bridge?

Objected to as irrelevant and immaterial.

A. I do not remember ever to have drawn one.

X-Q. 82. Why do you say you do not remember. Don't you know that you never did?

A. I do not know, because I have been road master in my life.

X-Q. 83. Did you ever make a working draught for workmen to build a buggy by?

A. I have helped the workmen, but they generally draught their own buggies, do their own draughting.

X-Q. 84. You mean the workmen in the shop do their own draughting; every man draughts his own part?

A. Where work is made by hand in the smaller shops it is invariably the custom, and after it is draughted, presented to the employer for his approval.

X-Q. 85. How is it in the larger shops, the same way?

A. I suppose they employ a draughtsman. I do not know.

X-Q. 86. Did you make draughts for George Lowe when you were working for him, for his baby buggy business?

A. He had no baby buggy business that I did. If I did I do not know of it.

X-Q. 87. You say in your direct examination that you attempted to put side bar springs on a baby buggy, but never finished it. Why did you never finish it?

A. I can not tell. unless it was for lack of time, that I had to work at my business so as to make financial ends meet.

X-Q. 88. How long was this buggy which you sold to Joe Buchanan in your paint shop before it was painted?

A. It had the priming on when it was put up there.

X-Q. 89. How long was it up there before it was finished?

A. About fourteen months, twelve or fourteen.

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X-Q. 90. You say it went up there about May or June, 1877.

A. About the latter part of May or the first of June.

X-Q. 91. Were there any changes made in the spring on that buggy after you took it into the paint shop?

A. There was none.

X-Q. 92. Were the springs taken off during that time?

A. They were detached from the side bars so as to be able to paint the body.

X-Q. 93. What kind of a body was it?

A. A piano box body.

X-Q. 94. That was about the time the piano box buggy was becoming fashionable, or in demand, was it not?

A. They were used years before that.

X-Q. 95. Were they used years before that on side bar buggies?

A. Six or eight, or possibly more.

X-Q. 96. What kind of springs were used on them before that, when they were used on side bar buggies?

A. My first remembrance is a rigid side bar attached to the body with half springs attached to the bars. The next style that I remember was cross springs like the Brewster, without shackles but clipped to the bar. The next I remember was a Brewster side bar, which became very fashionable,

X-Q. 97. The Brewster was very fashionable when you made this spring and sold the vehicle to Buchanan, was it not?

A. It was fashionable when I made the trade with him for the horse and boot.

X-Q. 98. And you knew the Brewster spring was patented at that time, did you not?

A. I did, but believed he had no right to the patent as it was granted.

X-Q. 99. And yet you was willing to infringe Brewster.s patent by putting a Brewster spring on Buchanan's buggy?

A. I could at that time purchase a set of Brewster springs, royalty paid, at ten dollars per set, finished.

X-Q. 100. Did you at that time think it was right to put on a Brewster spring for Mr. Buchanan when you had no right to?

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A. I did have a right to for at that time they were kept regularly in stock for sale, as they now are.

X-Q. 101. You were not licensed to put them on, were you?

A. A license was not required at that time, and I was only required to purchase the goods.

X-Q. 102. Didn't you know that Mr. Brewster did not license any body to manufacture and sell his spring outside of his own shop?

Objected to as the witness has already answered that the Brewster spring then as now was regularly on sale, and it is well known that the purchaser from Brewster or his agents is licensed for the springs purchased.

A. I knew that Mr. Brewster did not permit any one to manufacture them, but not that he did not permit any one to use them outside of his shop or spring factory.

X-Q. 103. You would have put a Brewster spring on for Buchanan at that time whether the license was paid on the Brewster spring or not, wouldn't you, because you thought Brewster had no right to his patent?

A. Not for that reason, but I would have changed the springs on his buggy after he had given them a fair test and placed the Brewster spring there which I could have purchased from his agent there.

X-Q. 104. Mr. Buchanan was to give your spring a fair test, was he?

A. He seemed perfectly willing to do it.

X-Q. 105. Wasn't that the understanding when he traded for it?

A, So far as I stated before. I told him I wanted him to test them, and if they were satisfactory I would apply for a patent as soon as I was financially able.

X Q. 106. This you told him at the time you made the trade?

A. I told him this on several occasions, whether just at the time the trade was made I do not remember.

X-Q. 107. You told him that the last time just about the time the trade was made, did you not?

A. I can't remember, but did speak of it while we were

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on the trade which lasted several months.

X-Q. 108. You did not begin to talk about the trade until after the bnggy was finished, did you?

A. Yes, a long time before it was finished.

X-Q. 109. How long before it was finished?

A. Between eight or ten months.

X.Q. 110. Now, about how long before it was finished did you tell him you wanted him to test it, the last time?

A. I have no remembrance when the last time was.

X Q. 111. Do you think it was as much as two months before it was finished?

Objected to as immaterial.

A. It may have been two or it may have been ten. It was our understanding that it was to be tested.

X-Q. 112. It couldn't have been over ten when you last spoke to him about testing it?

A. It might probably not be that long.

X-Q. 113. Well, it was the understanding between you and him all the time during the negotiations up to the trade that he was to test it, was it not?

A. It was a mutual agreement between us that he would test it.

Adjourned to 10 o'clock Friday morning, February 25th, 1887.

Met, pursuant to adjournment. Present, same parties.

X-Q. 114. When you took that vehicle up to the paint shop, you say it had a priming coat on it. What was the color of that priming coat, lead color?

A. Yes, sir. That is the color we always prime with.

X-Q. 115. What color did you paint the axles and side bars with on the finishing coat.

A. The finishing coat was varnish, but the paint under was finished in black as well as I can remember.

X-Q. 116. Were the wheels black?

A. The whole gear was painted of the same color.

X-Q. 117. You say you detached the springs from the side bars when you painted the body, now what color did you paint the springs and body?

A. The springs and body were attached and they were

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painted the same color as the gear.

X-Q. 118. Was it black or brown or green, the last coat of paint?

A. It was black, so well as I remember.

X-Q. 119. Are you certain it was black?

A. To the best of my remembrance it was black.

X-Q. 120. Might it have been a bluish tinge, making it what we term a blue-black?

A. I generally use Masury's J black, and suppose it was painted with that.

X-Q. 121. Might it have been an olive green, so far as your memory goes?

A. I never painted a buggy olive green in my memory.

X-Q. 122. Then you are satisfied this was not an olive green?

A. Yes, because olive green being an unusual color for carriages, it would have impressed my memory closer as to the color.

X-Q. 123. How many coats did you put on the body and springs beside the priming coat?

A. I have no memory as to the exact amount.

X-Q. 124. Was the base of the priming coat lead and oil or ochre, lead and oil, or what was it?

This whole line of cross-examination objected to as a needless waste of time and wholly irrelevant and immaterial to any issue in the case.

A. I do not know exactly but suppose it was made from lead, oil, lamp black, and a little japan, as that is our general form for priming.

X-Q. 125. Did you rub the paint down on the body and springs after each coat was put on, that is, did you pumice-stone it?

A. I suppose it was pumice-stoned before the black was put on the body, but do not now remember the operation in detail.

X-Q. 126. You usually pumice-stoned your work at that time, did you not?

A. Yes, we usually pumice-stoned work before the color was put on.

X Q. 127. Did you put a coat on after the priming coat and before the last black coat was put on?

A. I suppose my painters did as they usually do.

X-Q. 128. More than one coat between the priming coat and the last black coat?

A. I suppose so.

X-Q. 129. Can't you give us an idea of how many coats usually went on between the priming coat and the last black coat, and how many times it was pumiced down?

A. On the gear I usually have four coats of lead put on, one or two coats of black afterwards as are necessary, one coat of coloring varnish, frequently add a coat of rubbing varnish, and finish with one coat of finishing varnish. On the body I generally have three coats of lead, six coats of filler, then rub down with pumice stone, then two coats of black, one coat of coloring varnish from one to three coats of rubbing varnish, each coat rubbed with powdered pumice stone, and afterwards finished with finishing varnish.

X-Q. 130. You say in your direct examination that these springs were made from old springs and one of the leaves broke. When that leaf broke Buchanan thereupon put the Timken spring on the buggy, did he not?

A. Yes. I saw the springs taken off in Mr. Buchanan's shop, and afterwards saw the Timken springs on the buggy.

X-Q. 131. What kind of a shop did Buchanan have, and what was his business at that time?

A. He had a wagon, cart, plow and buggy, and general repair shop. It was a general manufacturing and repair shop for such purposes.

X-Q. 132. Do you know whether these springs had ever broke before that time?

A. I do not know it, but think they did not.

X-Q. 133. Where did you keep these springs after you received them from Buchanan, and before you turned them over to Olin?

A. I took them up in my varnish room and put them in one corner of it where they stayed until they were packed up with my other shop material and tools and placed on a car which I hired, and which carried myself with these tools and

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materials to Dyersburg, Tennessee. They were then transported in wagons to the farm that I occupied eight miles out. They were kept continuously in a barrel at that same place until Mr. Olin called on me on the 19th of March, 1886, and I there delivered them to him, for which he gave me the receipt that I now hold in my hand.

X-Q. 134. What did you do with the broken hind spring, the mate of which you say you sent to the Columbus Buggy Co.?

A. I paid no attention to it, but threw it in the scrap pile of old steel.

X-Q. 135. Why did you send its mate to the Columbus Buggy Co.?

A. Because they requested it through their agent at Indianapolis with the faithful promise from him that it should be returned to me as soon as they were through with it in their case with Timken.

X-Q. 136. You gave it to them then to aid them in defeating the Timken patent, did you not?

A. I only loaned it to them through request, with no particular desire that they should defeat Mr. Timken.

X-Q. 137. Did you tell them or their agent what you knew about this spring?

A. I may have. I generally do.

X-Q. 138. What do you mean by saying that you generally do?

A. When I am asked by persons I generally make a statement as truthfully as I can in regard to my rights of priority, and what I know or think I know about the springs.

X-Q. 139. Did you ever write to them anything about this spring.

A. I have written to them in regard to their automatic spring, and may have mentioned the Timken spring in my letter.

X-Q. 140. Did you ever write to them making any propositions in regard to testifying for them?

A. I can't say unless I had brought a copy of my letters which I have at home.

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X-Q. 141. Will you say you did not?

A. I will not, but I remember that I was anxious for them to take an interest in what I thought was my rights and they furnish the money which I did not have, to defray the expenses of a suit.

X-Q. 142. How much money did you want them to furnish to defray the expenses of a suit?

A. I have no remembrance of making any amount in my mind at all. Only I knew it would take more than I had or was able to get to obtain my right.

X-Q. 143. What did you propose giving them in return for the money?

A. I do not now remember any proposition that I made to them, but would have given them a one half right.

X-Q. 144. How did you come to know that there was a suit pending between them and Mr. Timken?

A. Either through the papers, or the Carriage Makers' Journal, or The Hub, a carriage makers' monthly paper.

X-Q. 145. Did you ever see an advertisement in the Carriage Makers' Journal, or the Hub, purporting to be from the Columbus Buggy Co., requesting all persons to correspond with them, who had ever made or knew anything of a buggy spring similar to the Timken, or words to that effect?

Objected to because it does not appear so far in the record that there was any such advertisement, and the advertisement itself is not produced, and for the further reason that it is not proper cross-examination.

A. I remember of having seen an advertisement from Mr. Timken to that effect.

X-Q. 146. Question repeated.

A. I never saw it to my memory.

X-Q. 147. Did you give a bond as guardian for your ward in 1877?

A. I never gave a bond in my life to my memory. I only received the ward as my brother's son.

X-Q. 148. Why did you make the hind springs of this vehicle which Buchanan traded for a different shape from the front springs?

A. I did not order it so made, but as there was but a

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little difference in the curves after they were finished I paid no attention to it.

X-Q. 149. Who made these springs for you?

A. I believe that Mr.—let me think of his name. He is generally called Leonard, and almost goes by that name universally, but his name is Leonard Bodenmiller.

X-Q. 150. Was he working for you at that time?

A. He worked occasionally for me but was working for Lowe. Yet I am not certain beyond doubt that he made the springs.

X-Q. 251. You are certain beyond doubt that you didn't make them yourself?

A. I am not, for I have made springs.

X-Q. 152. Then you do not know who made these springs?

A. I know they were made in my shop at the date above mentioned—at or about.

X-Q. 153. What do you mean by at or about?

A. Near to.

X-Q. 154. Do you keep any books to tell you when you made those springs—any memorandum—or do you simply trust to your memory?

A. I trust to my memory from events that happened of which I have a record or house rent receipts or other things which have impressed my memory.

X-Q. 155. What house receipts do you have which enable you to remember this date?

A. Shop rent receipts together with other receipts and accounts.

X-Q. 156. What other accounts and receipts.

A. None that I remember but an account from George K. Share's store for an attachee of which about the same time that I ironed this buggy off or had it ironed off, I built a buggy for him with a Whitney spring and wanted him to let me put on a spring like the springs now exhibited, and he preferred the Whitney spring. He was Mr. Share's brother-in-law. He is now dead and I cannot remember his name.

X-Q. 157. Have you any of those receipts with you?

A. I have the receipt of James Buchanan, but for the

receipts or account of this Whitney spring mentioned I will have to refer you to Mr. George K. Share's books.

X-Q. 158. Did you say you have the Buchanan receipts with you?

A. I have.

Complainants' attorney desires witness to show him the receipt.

A. I was mistaken about the Buchanan receipt, but I have an account which I have had ever since 1877, August 29th, against Mr. Gilbert Sloan, whose buggy I did paint and trim after the two buggies above mentioned were ironed off.

X-Q. 159. When you painted that vehicle which Buchanan traded for, you were using, or did use the best material' did you not?

A. No sir. The best material was too expensive for the prices obtained.

X-Q. 160. What kind did you use, second best, or third best, or what?

A. Sometimes tolerably good or medium, and sometimes cheaper material, as I obtained pay for the same.

X-Q. 161. Was this medium material, or the poorest that you put on that buggy?

A. I suppose it was medium.

X-Q. 162. Did you ever write to Mr. Appleton S. Bridgess, of St. Louis in answer to a letter purporting to come from him or Mr. Timken, asking you what you knew about the Timken spring, or words to that effect?

A. I don't remember of ever having heard or read the name of Appleton S. Bridgess until I arrived in Cincinnati on the 24th of this month, and heard Mr. Olin speaking of Mr. Bridgess as a son-in law of Mr. Timken.

X-Q. 163. Did you ever write a letter enclosing a pencil sketch of your spring to Mr. Timken?

A. I do not remember of having given him a pencil sketch of this spring, but think I referred him to his trade mark for the shape, a copy of which letter I have with me, I think.

Complainants' attorney requests witness to let him see the letter, which is done.

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X-Q. 164. You refer in that letter to a letter written him in March, 1881. Do you know whether you enclosed a sketch of your spring in that letter?

A. I do not think I did. Here is the letter. I do not know whether it is in the precise words or not. I think it is.

X-Q. 165. You read the copy of this letter before answering the last question, did you not?

A. I have read it several times, but only casually glanced over it.

X-Q. 166. What was the date of the March letter, 1881, when was it sent, to whom was it sent and where was it mailed?

A. March 5. Written and forwarded to Henry Timken, at St. Louis and mailed in Indianapolis.

X-Q. 167. Will you swear that you did not enclose a sketch in this letter mentioned in your last answer?

A. I will not, because I am usually in the habit, and always willingly give to any person asking it a sketch of any thing that I think useful or beneficial.

X-Q. 169. What was the date, to whom addressed, and where was it mailed, the letter of 1884 to Henry Timken?

A. May 5th. Directed to Mr. Henry Timken, St. Louis, and mailed at Indianapolis.

X-Q. 170. Will you swear that you did not enclose a pencil sketch in that letter?

A. I will not.

X-Q. 171. On the morning of the 24th you say that you attached the springs to the spring bar in Olins' shop or at their place of business. That spring bar is a new spring bar, is it not?

A. The spring bar is new. After I went to Mr. Olin's house of business on Sixth street I requested Mr. Olin to let me attach the springs to a bar as nearly alike as they were originally attached.

X-Q. 172. That is the same kind of a spring bar to which they are attaching their springs, is it not?

A. It is a wider bar. Their spring bars are not sufficiently wide to allow the bolts and clip bars as they were put on the original bar.

Adjourned to 2 o'clock p. m. same day.

Met pursuant to adjournment. Present same parties.

X-Q. 173. How much did you get from George Lowe per month, when you worked for him from 1874 to 1876?

A. I did not work by the month. I did piece work.

X-Q. 174. How much did you earn by piece work per month?

A. I can't state definitely, but made a sufficiency to pay my general expenses of living.

X-Q. 175. I did not ask you what your general expenses of living were. I asked about how much money you made per month by piece work. Can you tell me?

A. I have no distinct remembrance as to how much it would come to by the month, or in reality how much I made there the entire time I was there, but remember that my earnings were a good deal less than at other places where I had worked.

X-Q. 176. Can you give me an idea of how much you earned per week?

A. I have no remembrance as to what it would amount to per week, as piece work generally requires a running account.

X-Q. 177. Can you give me any idea of how much you earned in the year ending with December 31st, 1874.

A. I cannot.

X-Q. 178. Can you give me any idea of how much you earned with the year ending December 31st, 1875?

A. The only idea I could give you is that it required about or near all of my earnings to supply the demands of my necessary wants without going in debt. I remember during that year I wanted to buy an overcoat and did not have the money to do it.

X-Q. 179. Did your wages amount to as much as twenty-five dollars per week during the time that you worked for Lowe?

A. They did not.

X-Q. 180. Did he pay you every week?

A. He paid me almost regularly some money each week. Most generally to the best of my recollection ten dollars and

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sometimes fifteen and sometimes possibly twenty.

X-Q. 181. How often during the year do you think he paid you twenty dollars per week?

A. I have no distinct remembrance of his ever paying me that amount, but think he did it occasionally as that was his general usage with his hands.

X-Q. 182. What do you mean by his general plan or usage?

A. The general manner he had in paying his hands generally.

X-Q. 183. Do you mean that the general manner he had of paying his hands was ten dollars some weeks, fifteen dollars some weeks and twenty dollars some weeks?

A. I do. He paid generally as he had money to pay with, or as he claimed he had.

X-Q. 184. Then you never got less than ten dollars per week nor more than twenty in the year 1875 while you worked for Lowe?

A. I may have got less than ten, and may have got more than twenty at times, but do not remember now distinctly.

X-Q. 185. Why did you tell me that you had no idea of how much you got per week?

A. Because I had never approximated my earnings per week.

X-Q. 186. When you say you sometimes got ten dollars, sometimes fifteen and sometimes twenty per week, is not that approximating your earnings per week?

A. I did not consider it as such

X-Q. 187. Do you remember how much money you got for wages from Lowe during any one week during the year 1875?

A. One week's payment is vividly on my memory. He having paid me a new ten dollar greenback bill, but I cannot distinctly remember what time in the year it was.

X-Q. 188. Do you recollect any other week the amount he paid you?

A. No. Only it was his general plan of paying me that amount and over.

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X-Q. 189. Did you keep any account with him as to the amount of work you did for him yourself?

A. I always kept it in a little pocket memorandum book which I kept in my tool box on my bench.

X-Q. 190. And which you referred to every week that he paid you?

A. Generally placed the amount he paid me in the book.

X-Q. 191. And yet you say you cannot give me any idea of how much money you earned per week, per month or per year, during either of the years 1874 or 1875?

A. I did not charge my memory with either the amount of earning or amount of money that I received per week, month or year during that time.

X-Q. 192. Have you any idea whether during the year 1875 that it amounted to as much as a thousand dollars?

A. I have no idea that it did.

X-Q. 193. Have you any idea that during that year it amounted to as much as eight hundred?

A. I do not believe it did.

X-Q. 194. Have you any idea that during that year it amounted to as much as six hundred?

A. I should suppose it did.

X-Q. 195. Have you any idea that during that year it amounted to as much as six hundred and fifty?

A. I cannot tell unless I have my book for reference.

X-Q. 196. Then your best idea now is that it amounted to about six hundred dollars during 1875?

A. That is not my best idea.

X-Q. 197. What is your best idea about it?

A. If I had the book for reference I could tell you.

X-Q. 198. You do not know anything about it then—you have no idea as to the amount?

A. Yes, I know something about it from the general impression on my mind that it was more than six hundred dollars and scarcely eight. This is all that I remember or have impressed on my mind in regard to it.

X-Q. 199. Then your best impression is that it was more than six hundred and less than eight during 1875, is it?

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A. I do not know certainly. I only speak from the impression on my mind.

X-Q. 200. How long since you got this impression on your mind about this amount?

A. I cannot tell how long it has been.

X-Q. 201. Do you mean to tell me that you had that impression when I first began to question you about these amounts?

A. I mean to say that it takes between about six and eight hundred dollars to support my family and pay rents without encumbering myself and I approximated the amount from the fact that I about made expenses that year from my earnings.

X-Q. 202. Then you did not approximate the amount from any memory you had of the amount you received?

A. Yes, both from the amount I received, and my expenses being ten or fifteen dollars a week, and I receiving the same amount would approximate somewhere near six or eight hundred dollars.

X-Q. 203. How can you approximate what it cost you to live when you cannot tell how much you received?

A. Because it generally cost me about ten or fifteen dollars a week to live in a city. I do not remember of being encumbered at the end of the year.

X-Q. 204. What time in 1876 did you go in business for yourself?

A. In May, June and July I commenced getting work of my own accord at Mr. Lowe's shop by his consent, he not being able to furnish me with work sufficient. In August, 1876, I commenced business at 240 East Pearl st., at the same time doing Mr. Lowe's work, and whatever I might get at my own shop.

X-Q. 205. From January to August 1876 how much did you make per week, or during the whole time, or per month.

A. I have no remembrance whatever. I only remember that I got but little work to do.

X-Q. 206. What is your best impression as to how much you made?

A. I have none, for I never gave it thought, but re-

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member it was only a small amount.

X-Q. 207. Do you think it was as much as three hundred and sixty dollars?

A. I could not say.

X-Q. 208. Do you think it was as much as three hundred dollars?

A. I could not say. I have not pressed my memory with it. I could not say without consulting my book.

X-Q. 209. Is that the same book you began to keep your accounts in when you first began to work for George Lowe?

A. I think I kept my accounts in the same book during my whole stay with Mr. Lowe, and also think this book contained our settlement.

X-Q. 210. Could you find that book at home now?

A. I looked for the book before I started, through my papers, believing it contained on the back a sketch of the spring that Mr. Timken claims, that I might exhibit it to the court, but could not find it.

X-Q. 211. Then you cannot approximate without that book, or give me any idea of how much you earned between January and August, 1876, can you?

Objected to because the question has been repeatedly answered and is wholly immaterial.

A. Only from profits and losses and expenses.

X-Q. 212. How can you remember profits and losses so well when you cannot remember what you earned?

A. Only from the principle that induces me to remember that on my fiftieth birthday I expected my wife to get me a dinner, and when I went home I found she had forgotten it.

X-Q. 213. How many men did you have working for you in the month of September, 1876.

A. I had none, only such as I could employ or had work for. I had no regular hired hands.

X Q. 214. How many men did you have working for you regularly or irregularly, during the month of September, 1876.

A. I may or may not have had them, I cannot tell during that month.

X-Q. 215. During the month of October how many did

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you have regularly or irregularly working for you?

A. I don't remember that month whether I had any working for me or not besides myself.

X.Q. 216. During the month of November, 1876, how many did you have?

A. Can't remember now, but had some working off and on as the work would allow.

X-Q. 217. Can you give me the names of some of them?

A. Mr. Leonard Bodenmiller was one I employed sometimes. The others I cannot now remember if I had any others.

X-Q. 218. Was Bodenmillers employment continuous from that on to 1878?

A. He only done me small jobs when I needed him. I had no work for a regular workman.

X Q. 219. Do you mean to tell me that he held himself in readiness to do work for you on small jobs up to the year 1878 without being regularly employed?

A. I do, even to half an hour's work in a week, for he was working for Mr. Lowe who did not give him steady work, and almost always made it convenient to work for me when I needed him.

X-Q. 220. How many men did you have employed during the balance of the year 1876.

A. In December I employed Mr. Wm. Currey, a wood worker at Mr. Lowe's, to make me a body with bars arranged for the springs here represented.

X-Q. 221. Why do you always seem so anxious to repeat about the springs here represented and the body.

A. Because I believe myself to be the original inventor of what is known as the Timken spring.

X-Q. 222. How many jobs did you have between August 1876, and December 31st, 1876?

A What kind of jobs do you mean? I cant tell. I took in every little job of trimming, painting and cushion-making that I could get to defray my expenses.

X-Q. 223. You didn't work these small jobs by piece work, did you?

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A. Sometimes for Mr. Lowe and sometimes for other persons at my shop.

X-Q. 224. Can you approximate the number of jobs of that kind you had during that time?

A. I cannot. I have no data from which to approximate them.

X-Q. 225. Do you remember, or can you approximate the amount of money you took in, or the value of the work you did in your business from August to December 31st?

A. Only from expenses and profit and loss until Christmas day I remember to have bought a pair of boots for myself and a dress for my daughter, which took about all the money I had.

X Q. 226. What do you mean by profits and loss in your last answer?

A. I mean what I made was profits and what I expended for my family and rent and other expenses of like nature—losses.

X-Q. 227. And you cannot tell me during that time whether you took in five hundred dollars or five thousand?

A. Yes, I can tell you that I did not take in five thousand.

X-Q. 228. Can you tell me whether you took in as much as five hundred or not?

A. I don't think I did.

X-Q. 229. Do you think you took in four hundred?

A. I don't believe I did.

X-Q. 230. Do you think you took in as much as three hundred?

A. I have no data to go by only the fact that I was in rather straightened circumstances to meet my every day expenses, and had to purchase material from Mr. Share on short credit.

X-Q 231. Do you think you took in as much as two hundred?

A. I suppose I did, and more, else I would have been encumbered with debt.

X-Q. 232. How much more do you think you took in than two hundred?

W. E. Kierolf

A. I have not refreshed my mind on the matter and can not answer.

X-Q. 233. How much did you take in in the year 1877?

A. I kept no books except a blotter or small memorandum book. I tried to do a cash business as near as I could, and generally required the cash when the job was done, but to a good customer I would keep his account in this book until I needed the cash. I kept no account of the money paid out or paid in, but remember that I lived on West St. Joe street during that year and fell somewhat behind in my rents for shop and house, which I afterward settled.

X-Q. 234. How many good customers did you have on your book that year?

A. I have no idea. I paid no attention to the number of customers I had. I depended principally upon transient work, and such as I could gather.

X-Q. 235. How many hands did you work that year?

A. Charley Matlock, painter. Fisher and Bodenmiller, and perhaps others worked in the blacksmith shop at times, sometimes one and sometimes the other. Willie D. Kierolf and myself in the latter part of the year. Mr. Wm. Currey done some wood work for me during that year and I got hands as I needed them and could get them if I needed them.

X-Q. 236. Your credit was perfectly good at that time?

A. I don't know about that. I never tested it to any extent more than I saw I was able to pay when due.

X-Q. 237. About what was your expense account for your shop and hands during that year?

A. I can't tell. My shop rent was twenty dollars per month.

X-Q. 238. Can you tell me about how many cash jobs of any considerable size you turned out during that year?

A. I cannot, but remember one no-top buggy that I sold and for which I received the cash. That buggy contained springs similar to this and the purchaser camplained some little that I did not put on the Brewster spring, and his having to pay me two fifty-dollar greenback bills impresses my memory with that. Then I sold another one to George W. Moore. It had on second-hand wheels, and I afterwards put on new wheels

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brings that to memory. I think I sold others, but do not now remember.

X-Q. 239. Why did you commence to say in your last answer that he paid you two fifty-dollar gold pieces and then change to two fifty-dollar bills? Was it because of defeetive memory?

A. It was because I was thinking of the bills at the time and their appearance, and did not recognize the slip of the tongue until the sound was on my ear.

X-Q. 240. Your memory is pretty poor, isn't it?

A. When I press my memory, or anything unusual occurs, my memory is sure, but in minor matters I am careless.

X-Q. 241. Your business affairs are minor matters then, are they?

A. After they are settled definitely they become so.

X-Q. 242. Why did you keep this spring so carefully from the time Mr. Buchanan took it off of his vehicle?

A. Because I felt that I was the original inventor of this spring and that I might some day or other in the future find some one who had funds sufficient and would be willing to join with me for a part of what profits might accrue in obtaining the rights that I feel are mine in said spring.

X-Q. 243. And you still hope so yet, don't you?

A. While there is life there is hope.

X-Q. 244. Then you are interested in the outcome of this suit to that extent?

A. Not one iota, so far as I know.

X-Q. 245. Are you not interested in the Court's deciding that your invention was prior to Timken's, or don't you care how it decides it?

A. Of course I am, but not in the defeat of Mr. Timken by Mr. Olin, only so far as my friendly feelings towards Mr. Olin may be considered.

X-Q. 246. You came all the way from Jackson of your own volition to testify in this case, without being paid anything, did you not?

A. Mr. Olin paid my expenses here to testify in the matter.

S. E. Kiroff

X-Q. 247. Did he pay you anything else besides your expenses, either directly or indirectly?

A. He sent me a check for fifteen dollars, and my expenses here amount to fourteen dollars and forty cents. He has made no promise directly or indirectly to pay me more than my expenses here and back.

X-Q. 248. Then you are willing to lose your time and expenses while here to come here and voluntarily testify?

A. No. Mr. Olin proposes to pay my expenses here and I employed a hand to work at the shop while I was absent and expected Mr. Olin to settle it.

X-Q. 249. Did he agree to settle it?

A. He did not, only he said the trip should cost me nothing if I would come up and give my testimony in the case, and as some one was necessarily compelled to finish up some work which I have and which I would have done, I supposed this would be a part of the expenses.

X-Q. 250. Of course you told him what you would testify to before he employed you to come up here and testify, did you not?

A. I do not remember of ever having told him more than I have told any one who has asked me about the spring. I did not promise to testify to anything more than to prove my priority in this claim.

X-Q. 251. Do you know when the Centennial was?

A. One hundred years after the Declaration of Independence was signed.

X Q. 252. Do you know when the Declaration of Independence was signed?

A. I have a historical knowledge, but was not there when it was signed.

X-Q. 253. Do you know when Fort Sumpter was fired on during the late was—first?

A. I might probably find out from a history of the late war.

X-Q. 254. Do you know the date of the surrender of Lee at Appomattox?

A. I was not there, but I was at Johnson's Island, Ohio. a

prisoner of war. I paid no attention to the date of the sur render of Lee.

X-Q. 255. You knew of it at the time it occurred, of course?

A. I heard of it in prison and probably read it in the Sandusky papers, but when the war closed I gave it no more thought afterwards, let it pass off and have not pressed it upon my mind at all.

X-Q. 256. Can you tell me in what year it was, '64, '65. '66 or '67?

A. '65, I think.

X-Q. 257. Can you tell what month you were discharged from Johnson's Island as a prisoner of war?

A. I think it was June 22nd, 1865.

RE-DIRECT.

Q. 258. Will you hand to the Notary to be made a part of your deposition the receipt from Mr. Olin for the springs and the letters you wrote to Mr. Timken, and to which you have referred?

A. I will, and will state that these letters may not be verbatim et literatim et punctuatim, but contain the main points that I wrote Mr. Timken, and may be copies perfect of them.

The receipt referred to is offered in evidence, and the Notary will mark the same "Defendants' Exhibit. Kierolf Receipt." The two letters are offered in evidence and Notary will mark the same respectively, "Defendants' Exhibits. Kierolf-Timken letters March 5th. 1881 and May 5th, 1884."

Q. 259. You have stated in cross-examination that the single hind spring which was on the Buchanan buggy was loaned to the Columbus Buggy Co., to be returned to you. Was it returned to you, or what has become of it, if you know?

A. It has not been returned, and I am not certain but that I demanded its return and received no answer.

Q. 260. When, and in what periodical did you see the Timken advertisement referred to in your cross-examination?

A. I think it was the Carriage Makers' Journal loaned to me by the agent of the Columbus Buggy Co., during the

pending of the suit between Timken and the Columbus Buggy Co., and may have seen it before.

Q. 261. In your cross-examination you stated that in addition to your books and accounts there were other things that enabled you to fix the dates when you made the springs here exhibited and when you made the trade with Mr. Buchanan of the buggy on which these springs were placed. Please state what these other things are.

A. On the 6th of April, 1876, '77 I mean, Willie D. Kierolf, my nephew, became my ward. I was living on St. Joe street, and in a few weeks afterwards my daughter went down to West Tennessee and was married on Christmas day of that year. In February, 1878, about the middle of the month or 15th, I received the horse from Joe Buchanan, which he traded me for this buggy and I remember that Mr. Walker, a blacksmith, who afterwards became a sewing machine agent worked for me in November, December, January and February, and was present on the twelfth day of February when I made the final trade with Joe Buchanan. While I was trading with him, to decide whether I should take thirty-five dollars and the horse or Joe Buchanan should give forty dollars and the horse for the buggy, Mr. Walker proposed that we should throw heads and tails who should be successful and close the trade there which we both agreed to do, and which we did do. I, being the successful man, got the forty dollars and horse for the buggy. There were some funny remarks passed between the two that impressed me with that transaction. On the second of the following month, March, I had a child born to me and used this horse attached to a buggy to get the doctor with. When I ordered the body made with a bar connected of the proper width and so forth, to attach these springs, which I explained to him it was near the holidays and instead of working on the buggy he was on a spree. This latter was December 1876. Then again in 1877 on March 20th I moved to a house on Broadway and left it on the 5th of August, I think and moved to English Avenue, where I could obtain cheaper rents.

Objected to as not growing out of cross-examination.

Q. 262. You have been asked in cross-examination a

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great deal about this Buchanan buggy. As it appears desirable to know all about it, will you please give a history of it so far as you can, tracing it from the time you delivered it to Mr. Buchanan up to the last time you ever saw or heard of it?

Objected to as not growing out of cross examination.

A. I do not remember the exact date when Mr. Buchanan took the buggy out of my shop, but it was the summer of 1878. He used it and loaned it to his friends, I having used it in September, 1879 with my wife accompanying me to Nashville, Indiana. Mr. Buchanan painted and varnished it once or twice during the time he owned it and frequently left it in the room adjoining my shop, where I found it the day I exhibited it to Mr. Timken's agent who called on me as Mr. Timken's representative to examine the spring that I had written to Mr. Timken about and to which the letters allude that I have delivered. He did examine it and pronounced it similar to the Timken spring, if not identical. Some time after this, probably a year, Mr. Buchanan loaned this buggy to Mr. Charlie Zep who broke one of these hind springs. After which Mr Buchanan got a set of factory-made springs known as the Timken spring, and replaced them. While Mr. Buchanan was taking these springs off I asked him for them and he told me I could have them. I think I gave him some other old springs for them through courtesy. Mr. Buchanan afterwards trades this buggy to Dr. Jeffries, of Indianapolis, and after using it awhile, some eight to twelve months, or more, he traded it back to me—Dr. Jeffries—for another buggy that I had to which were attached what I call the rotary spring of my own invention. I painted up the buggy and sold it to Mr. Kitley who says he now has possession of it.

Q. 263. You have stated in cross-examination in giving the names of parties who worked for you in 1877 a Mr. Fisher who worked on some of the jobs finished by you in that year. Please state whether any of the jobs Mr. Fisher worked on had side bar springs like those here exhibited, and also whether any other jobs you say you made in 1877 had any of these springs. Who made the springs for the buggy which you sold for cash to go to Rushville?

S. E. Kierulf

Objected to as not growing out of cross-examination and decidedly leading.

Mr. Fisher ironed the running gear of the Buchanan buggy, rlso a side bar buggy with the Whitney springs on and made one of the set of springs and possibly two which were somewhat shorter than these on exhibit and which I claim to be similar if not identical with the drawings I had seen of what was known afterwards as the automatic spring. The reason these springs were made shorter was because the old steel springs that we made them from would not make them as long as I desired without purchasing new steel which at that time cost me ten or eleven cents a pound of an inferior quality, and the amount of steel it took to make so heavy a spring, and the amount of labor required to draw down the points of these leaves and the cost attendant caused me to have these springs as they were made from old springs. I believe Mr. Fisher made the springs on the Rushville buggy, but will not say definitely.

Q. 264. Have you any reason to believe that Henry Timken had obtained knowledge of your invention from any one to whom you had showed a sketch of the spring, the spring itself, or to whom you had explained your invention prior to the fall of 1877?

Objected to as leading, and not growing out of cross-examination.

A. I believe that such a thing might have been from the fact that I frequently made exhibits and especially to hands passing from shop to shop in that year, one of whom I remember as being a blacksmith out of employment, and desiring employment, and who said he had come from the East and was going West seeking employment. I remember that I often made exhibits in sketch, and after these springs were made to persons, not attempting to hold it private.

The part of answer objected to which is hearsay, and not growing out of cross-examination.

Q. 265. Can you name some one or more persons who saw you make sketches or drawings of your springs prior to 1877?

Objected to as not growing out of the cross-examination, and as leading.

A. William Goebler, William Curry, Leonard Bodenmiller, I think. Probably Philip Fisher. Other names I do not now remember.

Q. 266. Were these all small sketches or large drawings, or how otherwise?

Objected to as not growing out of cross-examination, and leading.

A. Generally chalk drawings, sometimes pencil drawings or sketches, simply to give them the idea. One chalk drawing was drawn in the year 1875 on the back door of Mr. George Lowe's blacksmith shop. I saw it there on the door after Mr. Lowe gave up his shop and the Sentinel Printing Co. was remodeling the shop. I saw this sketch often.

Q. 267. For what purpose did you draw that particular sketch?

Objected to as not growing out of cross-examination.

A. To show the style and shape of spring.

Q. 268. To whom?

Same objection.

A. To William Goebler and probably others who may have been present.

Adjourned to 10 o'clock Saturday morning Feb. 26th.

Met pursuant to adjournment. Present, same parties.

Q. 269. Please state what if any changes were made in the Buchanan buggy previously referred to, other than the substitution of the Timken springs for the springs "Defendants' Exhibit. Kierolf Springs," from the time you traded the buggy to Buchanan up to the time you received it from Dr. Jeffries and again sold it to Mr. Kitley. I mean either in the gearing or the body.

Objected to as not growing out of cross-examination.

My remembrance is that Mr. Buchanan had new wheels put on it, but in the width and length and size there was no changes made only as such repairing as was needed in its use was made. There was no change in its size made, width or length.

Q. 270. How do you know that the shackle bolts in "Defendant's exhibit. Kierolf Springs" are the same distance

apart that they were in the same springs when attached to the bar or spring block in the Buchanan buggy?

Objected to as not growing out of cross-examination.

A. Because the general width of our buggies was twenty-eight inches from center to center of side bars and for all these side bar buggies that we built we used the same axle cap pattern withthe side bar rests on it as for this buggy. I measured when I put these springs together, the width and fastened them on the bar as much alike their original fastening as I could in width and bolts.

CROSS-EXAMINATION.

P-Q. 271. These copies of letters were not written at the same time the letters were, were they?

A. No. They were the original letters. and in copying from these when writing to Mr. Timken I altered and changed them some possibly, and may have written others. I did not look very closely in my secretary to find all the letters I have written to Mr. Timken. I did not take or keep the original copies verbatim with interlinings but thinking that these letters would not be of any particular service I only put such in my pocket as I happened to see in about a half hour's search for this book which contained the sketch, on the night before I started after nine o'clock, having had business which occupied my time up to that hour.

X-Q. 272. What makes you say you may have written others, was it because you just saw me receive a package of letters?

A No, because I think I wrote four or five to him. I did not see him receive a package of letters, and only supposed the package he held in his hand were his private matters, to which I have no right or reason to see.

X-Q. 273. You say you had another spring in 1877 of a different kind, which you called the "rotary" spring. You were experimenting with it too, at that time, were you not? That is in 1877.

A. I was not experimenting with it then, but did experiment at a later date, and placed the same on a buggy, sold to Dr. Jeffries.

S. E. Kiesoff

X-Q. 274. What date did you put that spring on a buggy —first?

A. I think in 1884 or 1885.

X-Q. 274. Which was it, '85 or '84?

A. I cannot tell. Think it was '84.

X-Q. 276. You considered that one a great deal better than the other one, didn't you?

A. I did at the time, and believe so yet if the rocking motion sideways could be checked.

X-Q. 277. Did this sketch on the door show side bars—the door you spoke of in your re-direct examination?

A. It did not.

X-Q. 278. What kind of a door was it?

A. It was one of a wide double door in the rear part of Lowe's blacksmith shop, the left hand door as you pass to the alley.

X-Q. 279. Why didn't you speak of this sketch or draught in your direct examination?

A. I spoke of all the sketches and draughts that I could remember when the questions was propounded.

X-Q. 280. Did you ever enclose a sketch to Mr. Timken of your "rotary" spring?

A. I may have, and may have sent it to the Columbus Buggy Co. I did send it to my father-in-law.

X-Q. 281. What was the name of the man who said he came to see you from Mr. Timken, and when was it he came?

A. I have no idea what his name was. He never introduced himself to me by name. I supposed him to be Mr. Timken's brother. After I had been conversing with him a while about this spring he called Mr. Timken "Henry" and I supposed him to be his brother I do not know, but think he came in answer to a letter that I wrote to Timken in October 15th, 1881, a copy of which I have in my pocket.

X-Q. 282. Now you have been trying to show us that you were too poor to apply for a patent during these years. What tools and implements did you have in that shop of yours for your men to work with, and what was their value and where did you get the money to pay for them?

A. The anvil, bellows and some of the blacksmith tools

L. E. Kierolf

belonged to Mr. Buchanan, and I rented them as a part of the shop. I had no wood tools of my own, the value of which would not be over five dollars. I had a set of trimmer's tools, some of which I had had in my possession and given to me after my apprenticeship about thirty-six years ago. As soon as I was able to spare the amount of work out of the shop in repairing and such matters, I traded for a sewing machine—a trimmer's sewing machine— from the Singer Co., and paid for it in repairs. The value of all the tools except the machine, was about twenty or twenty-five dollars.

X-Q. 283. Have you mentioned all the tools and implements which were in that shop of any importance?

A. I have so far as my memory goes.

X-Q. 284. Have you talked with Mr. Olin or Mr. Murray about this sketch on the door since I commenced your cross-examination?

A. I do not remember of having said one word about it or of hearing one word about it from them since the case commenced only in common conversation it may have been mentioned by me.

X-Q, 285. Was it or not mentioned to them by you or by them to you?

A. I do not remember of its having been mentioned at all.

X-Q, 286. How could playing "flip" help you to remember dates?

A. I do not understand the question.

RE-DIRECT.

Q. 287. Will you hand the letter last referred to, and which you handed to complainant's attorney to the Notary to be made a part of your deposition?

A. I will and have done so.

The letter referred to is here offered in evidence and Notary will mark the same "Defendants' Exhibit. Kierolf letter of Oct, 15th, 1881."

CROSS- EXAMINATION.

X-Q. 288. Why did you not show this copy of letter di-

R. S. Kitley

rected to Timken or speak about it yesterday when being questioned about letters to Timken?

A. Because I had not looked at or compared any of these letters or read any except the two letters first introduced and did not know whether this letter was in my pocket or not as I had taken them out of my secretary without looking at the inside of them to see what was in them but supposed possibly I might have another copy among the letters I keep in my pocket which would give me some data as to when this man was at my shop. I did not know the letter was in my pocket yesterday nor until the question was asked.

S. E. KIEROLF.

R. S. Kitley, being duly sworn, deposes and says as follows:

Q. 1. State your name, age, residence and occupation.

A. R. S. Kitley. Age 36 years. Residence, Julietta, Marion County, Indiana. Am a farmer.

Q. 2. Please state whether or not you are acquainted with S. E. Kierolf, the witness who last testified, and if you are, state how long you have known him and where you made his acquaintance.

A. Yes, sir, slightly acquainted. I have known him since June 7th, 1884. I made his acquaintance at his shop in Indianapolis.

Q. 3. How did you come to make his acquaintance at that time?

A. I bought a buggy from him at that date, June 7th, 1884.

Q. 4. Please state what has become of that buggy if you know, and where it has been since you purchased it, up to the present time, and you may also state what kind of a buggy it was.

A. I have had the buggy ever since I bought it. It is a side bar buggy.

Q. 5. What kind of springs had it on when you bought it, and what kind has it on now?

A. It had Timken's springs on when I bought it and still has the same springs on.

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Q. 6. What changes, if any, have been made in that buggy since you bought it from Mr. Kierolf in June, 1884?

A. No change whatever, except different wheels.

Q. 7. How are you able to state that it was June 7th, 1884, that you purchased the buggy from Mr. Kierolf?

A. Because I gave him a note of the date of the day I bought it.

Q. 8. If you have that note in your possession please refer to it and hand it to the Notary to make a copy of it.

A. I have referred to it and here hand it to the Notary. The note referred to is as follows:

"No, ——. INDIANAPOLIS, IND., June 7th, 1884.

On or before June 30th, 1884, I promise to pay to the order of S. E. Kierolf fifty five dollars, negotiable and payable at Indianapolis, with interest at the rate of 8 per cent. per annum after maturity and five per cent. attorneys' fees. Value received without any relief whatever from valuation or appraisement laws. The drawers and endorsers severally waive presentment for payment protest or notice of protest and non-payment of this note.

R. S. KITLEY.
JOSEPH W. BUCHANAN.

$55.00. Due ——."

Q. 9. Can you state the width of the body of that buggy and the distance from center to center between the side bars?

Complainant objects to witness looking at a paper before giving his answer.

A. The distance from center to center of the side bars behind is twenty-eight and seven-twelfth inches. In front it is twenty-eight and five-twelfth inches.

Q. 10. What was the paper you were referring to when the objection above noted was made?

A. I took the measures at home to refresh my memory when I got here.

Q. 11. Did you put those measures down on the paper you were referring to, and if you did, when did you put them down?

A. I put them down myself on the 19th of February

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this year.

Q. 12. Was that the time you made the measurements?

A. Yes.

Q. 13. You were asked in a former question to give the width of the body of the buggy. Please do so if you can.

A. I can't do it. I did not measure it.

Q. 14. At whose request, if any one, did you make the measurements referred to, and who, if any one, was present when you made the measurements?

A. At the request of Mr. Olin—E. D. Olin—who is present, and he was with me when I made the measurements.

Q. 15. Did you mark the measurements on anything else than the paper you have been referring to?

A. I made the marks on a piece of iron rod.

Q. 16. Please examine the iron rod now handed you, and state what you know about it.

A. This is the iron rod that I took the measures on, which is twenty-eight and seven-twelfth inches long. To make the front width, it is twenty-eight and five-twelfth inches long to a file mark.

Q. 17. At what point on the side bars did you take these measurements, both front and rear?

A. I took these measurements from the center of the bolts in the side bar shackles.

Q. 18. Please examine "Defendants' Exhibit. Kierolf Springs," now shown you, and by means of the iron rod you have, state whether the shackle bolts in this exhibit are the same or different distances apart as compared with the front and rear springs on your buggy, of which you took the measures?

The witness, after making the measurements, says:

A. These shackle bolts are about one-half inch closer together than they are on my buggy behind, and about one-fourth inch closer to gether than they are in front.

Q. 19. How do you identify the rod which you hold in your hand as the same one with which you made the measurements on your buggy?

A. By a cold chisel mark that I made on the rod.

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The rod referred to here offered in evidence to be marked "Defendants' Exhibit. Kitley Iron Rod."

CROSS-EXAMINATION.

X-Q. 20. Have you had any conversation with Mr. Kierolf since you came here about your testifying?

A. Not one word has passed between us about my testifying.

X-Q. 21. When did you come to the city?

A. Thursday evening at seven o'clock.

X-Q. 22. What was the condition of that buggy when you bought it from Kierolf?

A. It was in good condition except the wheels. The hind wheels had been disabled in some way.

X-Q. 23. Did it show marks of much wear?

A. It did not. It had been newly painted. The tires were worn some, of course.

X-Q. 24. Did you examine the clips or clevises that pass around the side bars, and to which the springs are attached, before you came here?

A. Well, the day I took the measures I looked at them, of course.

X-Q. 25. Could you tell whether they were in the same place or places on the side bars that they were when originally put on?

A. I cannot.

X-Q. 26. Were they imbedded or burnt into the side bar or had they been put on loose and cold?

A. They were slightly imbedded in the wood.

X-Q. 27. Did they bear marks of much wear, or little?

A. I did not notice about that.

X-Q. 28. How wide is that side bar on its lower surface?

A. I did not measure it, and don't know.

X-Q. 29. Did it have scrolls on the end or was it plain?

A. I cannot say. I didn't look how it was fixed.

X-Q. 30. Were they bowed up slightly in the center, or were they perfectly straight?

A. I never looked to that.

R. S. Kitley

X-Q. 31. Where was the buggy when you bought it?

A. In the Buchanan shop near East street, Indianapolis.

X-Q. 32. Why did he say he wanted to sell that buggy?

A. I don't think he told me any reason why he wanted to sell it.

X-Q. 33. Did he state how long it had been in the shop fresh painted?

A. He did not to my recollection.

X-Q. 34. I believe this buggy has no top to it, has it?

A. It has a top which was on when I bought it.

X-Q. 35. When did you first become acquainted with Mr. Kierolf?

A. June 7th, 1884.

X-Q. 36. Did you buy this buggy of him personally?

A. I did.

X- Q. 37. How did you come to give your note for it, wasn't he anxious for money?

A. I gave him my note because I didn't have the money just then. I don't know whether he was anxious for money or not.

X-Q. 38. Did he offer to take any less if you would pay him cash?

A. He did not.

X-Q. 39. Did he tell you whose make of springs was on it?

A. He did not.

X-Q. 40. Did you pay that note to him or his endorsee?

A. I paid the money into Fletcher & Sharp's Bank. They held the note.

X-Q. 41. Look on that note and see if there is any date to the endorsement.

A. There is no endorsement on it.

X-Q. 41. That was put in the bank for collection?

A. Yes sir.

X-Q. 43. Can you tell dates by the game of "flip"?

A. No sir. I don't know anything about it.

R. S. KITLEY.

Philip Fisher

LAW ASSOCIATION PHILADELPHIA

Adjourned to 2 o'clock p. m. same day.
Met pursuant to adjournment.

Philip Fisher, being duly sworn. deposes and says as follows:

Q. 1. State your name, age, residence and occupation.

A. Philip Fisher. Was born in 1853 and am 34 years old. Reside in Indianapolis, Indiana. Am a blacksmith.

Q. 2. Are you acquainted with S. E. Kierolf, who was in the carriage business in Indianapolis in the years 1876, 1877 and 1878?

A. Yes sir. I have known him a year or two longer than that.

Q. 3. Please examine the springs now before you, and marked "Defendants' Exhibit. Kierolf Springs," and state whether or not you have ever seen these springs or springs similar to them before.

A. Yes sir. I have seen them. I don't know whether these are the same springs, but I have seen springs like them before.

Q. 4. State when and where you first saw springs like these, who, if you know, made the springs, and for what they were used or intended to be used.

A. The first place I saw those springs was at 240 East Pearl Street. I think the first pair of springs I saw like them I think I made myself. I made them for S. E. Kierolf, but I will not say that I made those for this does not look like my work. From all indications I think Mr. Leonard Bodenmiller made those springs. The springs that I made I think I put in three holes.

Q. 5. When did you make the springs that you made at 240 East Pearl Street? For whom did you make the springs?

A. I made those springs for S. E. Kierolf, according to his instructions. In the fall of 1876 I worked for Hugo & Kennard. That was on East Pearl Street, the very same street. In the spring I commenced working for Mr. Kierolf. That would be in 1877. I commenced work for Mr. Kierolf sometime in April and worked for him off and on until some time the following fall. Between April and the latter

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part of June I made a set of those springs for Mr. Kierolf. I may have made more, but of one set I am certain.

Q. 6. What instructions did Mr. Kierolf give you that enabled you to make the springs you have spoken of?

Objected to as hearsay.

A. He came into the shop one day and took a piece of blackboard about a couple of feet long and he just draughted it off—made a line of it—and told me to make a pair of springs like that. He told me to take some old steel springs and make them out of it. I made them and think I put in three leaves of old springs. Then I am pretty certain I put in three holes, one here (indicating the end bolt in a spring) one in the center about an inch and a half from the end bolt and one about another inch and a half making three inches from the end. That is about how holes are parted in springs.

(Witness referred to "Defendants' Exhibit. Kierolf Springs.")

Q. 7. State if you know whether the springs that you made were used, and if used, for what purpose.

A. I do not know. I don't think I ever put them on a job. Some time Mr. Kierolf would have repairing work that would keep you busy for a day or two and then none at all for a long time, may be for only an hour or two

Q. 8. What were the three holes which you put in those springs intended for?

A. The middle hole was intended to put a spring bolt in or rivet, the other two holes were intended to bolt on to a spring bar or spring block, whichever you might call it.

Q 9. While you were working for Mr. Kierolf do you know whether or not he sold any job of work to Mr. Joseph Buchanan or made any vehicle for him?

A. I do not know of his selling one but I remember of his speaking about trading and he had traded one. I saw the horse that he traded a buggy for. He was a large, bay horse and I saw the buggy that Mr. Buchanan got of him, but I did not see them trade.

Q. 10. Where did you first see the buggy that Mr.

Philip Dieter

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Buchanan got from Mr. Kierolf?

A. I saw Mr. Buchanan have it.

Q. 11. What kind of a buggy was it, and what kind of springs did it have on if you know?

A. It was a shifting-top buggy—a shifting rail. It was a side bar piano box. It had springs on of this kind (referring to "Defendants' Exhibit. Kierolf Springs") as near as I know. But I do not know whether it was those springs or other springs, for I did not get down to examine it.

Q. 12. When did you first see this Buchanan buggy?

A. The first time I saw it or knew of it, I rode in it from the fair ground to the city.

Q. 13. What time was that?

A. That was in the fall of 1877.

CROSS-EXAMINATION.

X-Q. 14. I thought you said you first saw it after Kierolf had traded it off to Buchanan?

A. I did sir. The way I first came to pay any attention to it was I told Billy that I had made the shifting rail for that body, when we were coming from the fair.

X-Q. 15. Whom do you mean by Billy?

A. Mr. Kierolf's nephew.

X-Q. 16. Didn't he trade this buggy off to Buchanan about February 1878?

A. I do not know, sir. I wasn't there when the trade was made.

X-Q. 17. Well, if he did make the trade in 1878, about February, then you must have first seen it in the fall of 1878 instead of the fall of 1877, must you not, because you say you first saw it after he traded it to Buchanan?

A. No sir. I think that we had a carriage at the exposition, and I was out there with Mr. Kierolf and Willie and I came home in the buggy. To the best of my memory that was in '77 as near as I can charge my memory.

X-Q. 18. In your direct examination in question 10, the question was asked you "where did you first see the buggy that Mr. Buchanan got from Mr. Kierolf." Your answer was, "I saw Mr. Buchanan have it." Is that correct?

A. I saw it at the shop. I thought I had told you that.

X-Q. 19. Was it after Mr. Buchanan traded for it or before?

A. I couldn't tell you that.

X Q. 20. Where did you first see Mr. Buchanan have it?

A. That is a question. I saw it in Mr. Kierolf's place where he stored old buggies away. Then I saw it at Mr. Buchanan's shop. He was using it at that time and had been using it.

X-Q. 21. How long had he been using it before you saw it in his shop?

A. I do not know.

X-Q. 22. Was it completely finished and painted when you first saw it?

A. When I first paid any attention to it, was and had been in use.

X-Q. 23. How do you know that that buggy which you rode in had springs similar to these? Did you look at it at that time?

A. When I jumped out I made the remark, I think I told Willie that they were a very easy riding spring, but I did not get down to examine whether that was the spring or not.

X-Q. 24. Now is that the first time you ever saw that buggy to know it?

A. No sir. It was the first time I rode in it.

X-Q. 25. You say it was a top buggy; what kind of a top buggy?

A. A shifting rail buggy. That was a shifting top buggy.

X-Q. 26. Then you can't say of your own knowledge whether that buggy had springs on similar to these or not? I believe you said that in your direct examination.

A. Not at that time I could not. As I said before I

X-Q. 27. Had Mr. Kierolf that bay horse at this time?

A. He had a bay horse, sir, at that time.

X-Q. 28. When Mr. Kierolf asked you to make those springs, had he ever shown you any springs like them already

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made in steel?

A. No sir. The way I came to make those was, I wasn't doing anything, and Mr. Kierolf said, "Here, Phil., I'll give you something to do," and he marked those springs off. He said, "take some old steel and make a pair of those springs." I said, " what springs," and he said, "like what I mark off," and he marked them off just like what he wanted me to make them. I done it. That's all there was of it. I think I made four of those springs, that is four ends, each end is a spring. I think I put three leaves in each spring. Then I don't remember whether he ever put them on or what he did with them.

X-Q. 29. What did he say, if anything, about your making three holes in them?

A. I don't think Mr. Kierolf said a word about it. Some of those springs had three holes in. They were old spring leaves. Others I punched holes to match those that had holes in.

X-Q. 30. Did you hammer them out and turn them up at the end like those?

A. Yes sir, and bent the eye on them, that is, the main leaf. You bend the main leaf in the shape you want it, then the others you draw out and fit them to the main leaf. That is "pounded out" as you folks would call it.

X-Q. 31. Then you didn't know from what Mr. Kierolf told you when you made the springs, what he was going to do with them did you?

A. No sir. Only I thought he would put them on a gearing some time. Sometimes he had jobs lying around that way for quite a while before he was able to finish them.

X-Q. 32. How long did you work for Mr. Kierolf?

A. I worked for Mr. Kierolf for six or seven years on spells. Whenever he had anything to do and I was at leisure I would do work for him. I done this all the time he kept shop at Indianapolis off and on. Sometimes Leonard Bodenmiller would work for him. He had other blacksmiths working for him when I was at work somewhere else.

X-Q. 33. You was intimate with him and well ac-

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quainted with his shop and contents, was you not, from the time you first began to work there?

A. I was.

X-Q. 34. Were you frequently in the paint shop during the time you worked for him?

A. Yes, sir.

X-Q. 35. You say Bodenmiller must have made these springs. Of course you don't know of your own knowledge whether he did or not, do you?

A. I think he made them. They have all the appearance of his work.

X-Q. 36. I am not asking you what you think. I am asking you what you know of your own knowledge. Do you know of your own knowledge that he made them?

A. No sir. I did not see him make them, but the springs have all the appearance of his work.

X-Q. 37. Why do you insist every question I ask you on stating that the springs have every appearance of Bodenmiller's work. Is it from a desire to serve the defendants?

A. No sir. The reason why is I have worked with him so long that I know his work about as well as my own when I see it.

X-Q. 38. The springs which you made for Mr. Kierolf you say were made the latter part of June, 1877. Now, if you made any more like those they must have been made after date, must they not?

A. They were made from April into June, some time the latter part of June.

X-Q. 39. You say in answer to question 5 in your direct examination, "in the latter part of June, 1877, I made a set of those springs for Mr. Kierolf." Now, is that correct as to time, or is it not correct?

A. I made those springs sometime between April and June. I couldn't state the day or what month in particular. In fact I paid no attention to it.

X-Q. 40. Then why did you state that you made a set of those springs in the latter part of June, if you did not make a set in the latter part of June?

A. I did not say I did not make them in the latter part

of June or the middle of April or the first of April.

X-Q. 41. When do you think you made that set, in April, May or June?

A. I could not say what month I made it in. I made them in June or the latter part of May, because I ironed off a barouche for Kierolf.

X-Q. 42. How long had Mr. Kierolf been running that shop before you commenced working for him?

A. All winter. That is as far as I know.

X-Q. 43. How many workmen did Mr. Kierolf have during the summer of 1877 and winter of 1877-78 besides you?

A. I don't know. He had a wood-worker. He worked at spells. He had a painter and his brother worked by spells. That was in the summer. In the winter I wasn't with him. I was working for Mr. Kellogg. That is as far as I know about his hands he had in his shop.

X-Q. 44. When did Mr. Bodenmiller work there?

A. He worked off and on at evenings in 1876 and 1877. At different times he would be working there. Sometimes I would be working late for Kellogg and sometimes Kierolf could not find me and Leonard would work for him. Kierolf would send for him.

X-Q. 45. Did Mr. Kierolf do a pretty extensive business or what kind of a business did he do?

A. He done repairing, and once in a while he would build a new job. Sometimes he would be busy and at other times he would have nothing to do. That is how Leonard Bodenmiller could work for him evenings occasionally. I would go around in the morning occasionally to see whether there was anything to do. If there wasn't I would go to town. When Mr. Kierolf would get some repairing to do, if he couldn't see me or find me, he sent for Leonard.

X-Q. 46. You were his confidential blacksmith in preference to Leonard, were you not?

A. No sir. Only I lived right around the corner from the shop. That is why I would be around there a good deal and do lots of work.

X-Q. 47. Did he ever tell you he was going to get those

springs patented in the year 1877 while you were working for him to your memory?

A. I do not remember that he ever said anything about it. I told him if I was him I would get them patented. He says, "it takes money to do that."

X-Q. 48. When was it you told him that?

A. During the time I was around the shop with him. I saw the springs laying there one day and I came in and kicked them and said "why don't you get those patented, Kierolf?"

X-Q. 49. How long did they lay around there after you made them?

A. Oh, I don't know. I paid no attention to how long they laid around there. As I said before I never saw them put on to my knowledge.

X-Q. 50. Can you approximate the time they laid around there to your best memory?

A. No sir. I haven't the least idea.

Plaintiff's counsel objects to the testimony of this witness for the reason that he was not cited in the answer as a person having knowledge of prior use as is provided for by statute, and asks that his testimony be stricken out.

RE-DIRECT.

Q. 51. Did you or not know when you made the springs similar to "Defendants' Exhibit. Kierolf Spring," for what kind of gearing they were intended to be used?

Objected to as not growing out of cross-examination and asks the Notary to request the witness to state facts within his own knowledge and not hearsay, and not what others told him.

The Notary gives the instructions asked.

A. I thought they were intended to be used for a side bar.

Q. 52. How did you suppose they were to be used on a side bar gearing?

Objected to because not growing out of cross-examination, and further because it calls for a supposition and not a fact.

A. Side bars was all the go those days. Everybody was

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trying to get the cheapest spring for a side bar. That is why I thought they would be used for a side bar.

Q. 53. What other kind of gearing was in use at the time you made these springs other than side bar gearing to which the springs you made could be conveniently applied, or applied at all to make an operative salable vehicle?

Objected to because not growing out of cross examination, and because calling for an opinion of the witness.

A. You could take a straight perch and take the elliptic springs off, then put side bars on the gearing and use those kind of springs on it.

Q. 54. Then it would be a side bar buggy?

A. Yes sir. It would be a side bar buggy. It would be a side bar gearing with a body to it.

Q. 55. When you say you got out of the Buchanan buggy when you came from the fair ground and did not examine it close enough to see whether it had springs like "Defendants' Exhibit. Kierolf Springs," did you mean that you did not examine it closely enough to see whether it had these identical springs on it or whether it had springs of this character on it? State exactly what you did mean.

A. I didn't pay much particular attention to it. I just jumped out of the buggy and thought nothing of it and remarked it was a very easy riding spring. I did not know those springs were on. I knew it was a side bar and it had cross springs on, but I did not know what kind in particular. I did not pay much attention to it.

RE-CROSS-EXAMINATION.

Plaintiff's counsel hands the witness a pen sketch which he asks him to look at and state whether or not those springs could not be applied to a gearing of the nature shown in the sketch.

A. Yes sir.

Plaintiff's counsel asks the Notary to mark the sketch "Complainant's Exhibit. Fisher's Exhibit 1," and asks the witness if he will make it a part of his deposition.

X-Q. 56. When you said in answer to question 51 that you thought they were intended to be used for a side bar, that

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was merely your impression at that time, was it not ?

A. That was all.

PH. FISHER.

Adjourned to 10 o'clock Monday morning February 28th, 1887.

Met pursuant to adjournment. Present same parties.

Joseph W. Buchanan, being duly sworn deposes and says as follows :

Q. 1. State your name, age, residence and occupation.

A. Joseph W. Buchanan. Age 31 years. Residence, Indianapolis. Am a manufacturer of road plows and wagons.

Q. 2. Are you acquainted with S. E. Kierolf, who formerly kept a carriage shop at 240 East Pearl street, Indianapolis, Indiana. If so, please state how long you have known him.

A. I am. I have known him since the fall of 1876.

Q. 3. Please examine "Defendants' Exhibit. Kierolf Springs," your attention being particularly called to the springs themselves, and state if you know what the same rep resent.

Objected to for the reason that it is leading and for the further reason that by the counsel showing the exhibit and calling it "Kierolf Springs," he suggests to the witness an answer to the question.

A. They represent as near as I can tell the same springs that I had on a buggy which I bought of Mr. Kierolf.

Q. 4. When did you buy the buggy of Mr. Kierolf to which you have referred in your last answer.

A. I traded for it in February, 1878

Q. 5. Had you or not seen that buggy before you traded for it in February, 1878 ?

A. I had.

Q. 6. About how long before you made the trade was it that you first saw the buggy ?

A. I think it was almost a year.

Q. 7. Where was it when you first saw it, and in what condition was it?

A. It was in his shop on Pearl street, up stairs. The

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gearing was all together and standing up in a corner. The body was on the floor.

Q. 8. What kind of springs if any did it have on when you first saw it?

A. I think it was this spring or a spring like it.

Q. 9. Will you please give a history of that buggy from the time when you first saw it until the time you last saw it, stating what if any changes were made in it during such time.

A. I first saw the buggy at Mr. Kierolf's shop before I thought of trading for it and during the summer and fall of 1877 Mr. Kierolf bantered me for a trade for a horse, and we did not succeed in making the trade for the buggy until February 1878. In that trade, he was to put a top on the buggy, and it was during the summer or fall of 1878 I took the buggy from his shop, about fair time, I think. I used that buggy myself until the summer of 1881 without making any changes. My brother then loaned this buggy to one of his customers' Mr. Zep, to use while he built him a new buggy. For the use of the buggy Mr. Zep paid for a set of Timken springs. They were then put on the buggy. In 1883 I traded this buggy to a Dr. Jeffries. He used it until 1885. He then traded it to Mr. Kierolf for a new side bar buggy. Mr. Kierolf overhauled the buggy and painted it and sold it to Mr. Kitley in April, 1884. Mr. Kitley still has the buggy.

Q. 10. In your last answer you say Dr. Jeffries used the buggy until 1885 and that Mr. Kierolf overhauled and sold the buggy to Mr. Kitley in 1884. Please explain this.

A. Dr. Jeffries sold the buggy to Mr. Kierolf in 1884. I made a mistake in the year.

Q. 11. When the Timken springs were put on that buggy as you say, what became of the springs that were on it when you received it from Mr. Kierolf?

A. They were laid up in my brother's shop for some time. Afterwards Mr. Kierolf got them.

Q. 12. Will you please describe by reference to the exhibit before you the method in which the springs were attached to the body and gearing when you first saw it and during the time you used it up to 1881.

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Objected to because the presence of the Kierolf exhibit and the manner of the question suggests an answer.

A. The springs were attached to the bars by means of a clip or shackle. and to the bar by means of bolts and bar, the bar forming part of the bottom.

Q. 13. How did the means of attachment to the bar that formed part of the bottom compare with or differ from the means of attachment in the exhibit before you?

Same objection.

A. I think they were just the same.

Q. 14. Do you know from whom Mr. Kierolf rented the shop on Pearl street in which you saw the buggy in 1877 for which you traded in 1878?

A. I do.

Q. 15. From whom did he rent the shop?

A. My brother, James M. Buchanan.

CROSS-EXAMINATION.

X Q. 16. Did Mr. Kierolf know when you had the old springs taken off and the Timken springs put on this buggy you speak of, at the time it was done?

A. I don't know that he did.

X-Q. 17. Who gave Mr. Kierolf these old springs?

A. I did.

X-Q. 18. Can you tell about how long it was after you took them off that you gave them to Mr. Kierolf?

A. I think I gave them to him or told him he might have them soon after they were taken off, but I do not believe he took them away from the shop for a year or more.

X-Q. 19. When you first saw this buggy were the springs attached to the body or were they attached to the running gear?

A. I think they were attached to the running gear.

X-Q. 20. Were they painted at that time?

A. I think not.

X-Q. 21. Was the body attached to the running gear at that time?

A. It was not.

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X Q. 22. Then the job was not finished at that time?

A. I do not know what you would consider finished.

X-Q. 23. Had it a priming coat on of lead color?

A. I think it had.

X Q. 24. How long after that was it before it was completely finished, ready to be turned out?

A. It was during the summer of 1878 that it was finished with top.

X-Q. 25. You say you first saw it during the summer or fall of 1877. Can you tell what month?

A. I can't tell the month, but it must have been in the early part of 1877.

X-Q 26. You mean by that the early part of the summer or fall, do you not?

A. The early part of the summer.

X-Q. 27. Now, Mr. Buchanan, if you knew that a man's title to this invention depended upon the date which you fix as when you saw it, namely, the early part of the summer of 1877 or the early part of the fall of 1877, would you be willing to fix the date as early as the dates you spoke of, or would you have some uncertainty about them?

A. I think I would be positive as to that time.

X-Q. 28. Which are you most positive of, the dates that you give or the fact that you saw the vehicle at all?

A. Of the fact that I saw it.

X-Q. 29. It might have been in the fall of 1877 or the summer of 1877, so far as you know now, might it not?

A. Yes, but I think it was summer.

X-Q. 30. Have you any reason to think it was summer rather than fall?

A. I have.

X-Q. 31. Well, what is the reason?

A. Mr. Kierolf bantered me for this trade in the fall of 1877, and I am positive I saw the buggy there quite a while before he spoke to me about trading for it.

X-Q. 32. Have you any means of knowing, outside of your impressions, when he first spoke to you about trading in the fall of 1877?

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A. I have. My brother had this horse that he got, and I know it was in the summer that he got the horse and he didn't want to keep him over winter. He had two others. He knew that I wanted a buggy, and after Mr. Kierolf suggested the idea of trading for a horse, he told me to make the trade if I could and we would get shut of feeding a horse through the winter.

X-Q. 33. Do you know what month it was your brother traded for the horse?

A. I do not.

X-Q. 34. Then if you fix the date of Kierolf's first proposal to trade by the simple fact that it was after your brother bought the horse and before winter, it might have been any time during the fall before winter set in or even after winter set in, might it not?

A. I think it was in the fall. I don't think it was after cold weather when he first spoke of it.

X-Q. 35. But the month or the day of the month you can't give?

A. No.

X-Q. 36. Was that buggy well painted when you took it away from Kierolf's shop in the fall of 1878?

A. It was.

X-Q. 37. When you first saw it you say it was up stairs. Was up stairs the paint shop?

A. Yes sir.

X-Q. 38 You didn't pay much attention to the buggy before you commenced talking about trading for it, did you?

A. I noticed that it had springs different from any I ever saw. Aside from that I didn't pay much attention to it.

X-Q. 39. Did you notice the springs particularly when you first saw them or casually?

A. I saw that they were springs that were different from any that I had ever looked at and I examined them and tried them with my weight.

X Q. 40. You will not undertake to swear that those springs before you are the same springs which you saw first?

A. I will swear that I think they are the same springs.

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X-Q. 41. How do you know that Kierolf sold this buggy to Kitley?

A. I went with Mr. Kitley to Mr. Kierolf's shop, and was with him when the sale was made.

X-Q. 42. Kierolf wanted you to take this buggy and test it to see whether it would work, when he proposed trading it to you, didn't he?

A. No. I first objected to the spring because I didn't know whether they would stand or not, and Mr. Kierolf told me if they didn't stand he would make them good.

X-Q. 43. He wanted you to give them a trial, didn't he?

A. They were on the buggy and he told me to try them. He seemed very confident that they would prove all right.

X-Q. 44. How many of them were broken when they were taken off?

A. One section of the hind spring I believe was all.

X-Q. 45. Did Kierolf have a horse before he got this horse that you traded for the buggy, while he was in that shop?

A. I don't think he did.

X-Q. 46 Were the springs which you saw when you first saw them attached close to the center as they are in the exhibit before you or were they attached close to the ends of the bar?

A. They were attached like the exhibit, close to the center on both sides of the center.

X-Q. 47. Were they that way when you traded for the buggy?

A. They were.

X Q. 48. Was the old spring bar taken off when the Timken spring was applied, or did it remain on?

A. It was taken off.

X-Q. 49. What was done with it, if you know?

A. I don't know what became of it.

X-Q. 50, Was both of them taken off, front and rear?

A. I'm not positive as to front, but think they were both taken off.

X-Q. 51. Did you ever write a letter to Mr. Timken about this spring and buggy?

A. I wrote one in answer to one he wrote me.

Jos. H. Buchanan

X-Q. 52. Do you remember the date of your letter to him?

A. I think it was in the spring of 1884, April probably.

X-Q, 53. Did you make a pencil sketch in that letter, showing the construction of this spring?

A. I think he asked me to, and I think I did, a rough sketch.

X-Q. 54. Would you remember at the date of that letter the construction of that spring as well as you do now?

A. No. I do not think I would.

X-Q. 55. Why wouldn't you remember it as well then as now?

A. That being the first set of springs I saw, I have seen a great many more since and paid more attention to them. I was under the impression at that time that springs passing each other and bolting to the bar at either end would be considered the same principle without regards to length, but I find since that it is not.

X-Q. 56. The question is would you remember the construction of the spring that was on the Kierolf vehicle which you traded for as well at the date of your letter which you wrote to Mr. Timken in April, 1884 as you do now?

A. I would if I had examined the spring closely at the time I wrote Mr. Timken.

X-Q. 57. Then you had not examined this particular spring on the Kierolf buggy closely up to that time?

A. I had, but not at that time.

X-Q. Then if I understand you aright, you had examined it closely before that time, and at that time had forgotten whether the spring was attached close to the center of the bar in the Kierolf vehicle or at the extreme end of the bar?

A. I had forgotten whether it was attached at the end, but I knew it was fastened past the center.

X-Q. 59. Did you know at that time whether the Kierolf spring was attached to the bar by means of bolts or clips?

A. I think I told him, or at least I knew it was attached by bolts.

X-Q. 60. Did you show in your sketch whether it was attached by bolts or clips, or both?

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A. I believe the sketch showed it was attached by bolts.

X-Q. 61. That letter of April 1884 to Mr. Timken was in answer to a letter from him requesting you to send him a sketch or drawing of the Kierolf spring, was it not?

A. It was.

X-Q. 62. Look at a letter which I hand you, signed, "Joseph W. Buchanan," and dated April 29th, 1884, and look at the pencil sketch in said letter, and tell me if that is the sketch you made in answer to said letter.

A. It is.

X-Q. 63. Was that sketch made by you with a purpose to deceive Mr. Timken as to the true construction of the Kierolf spring or was it made in good faith by you, showing what you then had in mind as the true construction of said spring?

A. The sketch was made in good faith at that time. I thought that simply the facts of the springs crossing each other and bolting to the bar at either end was all there was in it.

X-Q. 64. Why were you so particular in that sketch to show the bolts attaching the springs at the extreme ends of the bar?

A. I did not know that I was particular about mentioning the bolts, but that was my recollection at the time.

Adjourned to 2 o'clock p, m., same day.

Met pursuant to adjournment. Present same parties.

Plaintiff's counsel hands a cloth tracing of the pencil sketch in witness' letter of April 29th, 1884 to Henry Timken and asks the witness to compare the muslin tracing and the sketch and to state whether the muslin tracing is not a fac simile of the pencil sketch in his letter.

A. It is.

Plaintiff's counsel hands the muslin tracing to the Notary and asks him to mark the same as "Plaintiff's Buchanan's Exhibit No. 1."

The counsel for defendant objects to the introduction of this exhibit as the letter itself is the best evidence.

Jas. H. Buchanan

RE-DIRECT.

Q. 65. You say that when you got the buggy from Mr. Kierolf that you objected to the springs because you did not know how they would stand, but that Mr. Kierolf was confident they would prove all right. Did they prove all right?

Objected to because the witness did not say that Mr. Kierolf was confident they would prove all right, but that he "seemed" confident, and also as not growing out of cross-examination.

A. They did.

Q. 66. How do you know now in what position these springs were attached to your buggy? Did you ever measure the distance between the side bars or between the shackle bolts from center to center?

A. I know by the length of the springs. They wouldn't reach clear across the bar. I have measured the bars from center to center. What I mean by that is the side bars. the distance from center to center across.

Q. 67. When did you measure the distance and what did you find it to be?

A. I measured the distance last week and found it to be two feet and four and a half inches behind, and a quarter of an inch narrower in front.

Q. 68. What buggy did you measure last week, and where was it?

A. Mr. Kitley's buggy at my shop in Indianapolis.

Q. 79. Are you able to state whether that was the identical buggy you traded with Mr. Kierolf for in 1878.

A. It was.

RE-CROSS-EXAMINATION.

X-Q. 70. You think now that they must have been attached close to the center like these before you are, because these springs which you now see are too short to reach to the extreme end of the bar and not because you have any distinct remembrance of how they were placed on the spring bar, do you not?

A. Yes, sir.

Jos. H. Buchanan

X-Q. 71. Did you measure the springs which you took off the Kierolf buggy, or did you take them off yourself or did a workman?

A. I did not measure them nor did I take them off.

X-Q. 72. These springs which you took off had three leaves, each hadn't they?

A. I think not. I think the hind spring had three leaves and the front springs two.

X-Q. 73. What do you mean by saying you think not? Do you imply that is merely your impression?

A. Your question was whether the springs I took off had two leaves. You did not ask whether they all had two leaves or not.

X-Q. 74. You came over here from Indianapolis to testify without hope, fear or reward did you not?

A. I did. I hoped I would get through in time to get back to-night.

X-Q. 75. You have had frequent talks about this matter with Mr. Olin and others, have you not?

A. I have talked more frequently with others than with Mr. Olin.

X-Q. 76. When did you first discover that it did make a difference whether the springs were attached near the center of the spring bar or was attached near the ends?

A. Within the last two years.

X-Q. 77. Who told you about the difference, or did any one?

A. I don't think any one did.

X Q. 78. Are you acquainted with the spring known as the Automatic, manufactured by the Columbus Buggy Co., formerly?

A. I can't say that I am. I have seen a great many of their buggies.

X-Q. 79. Hadn't you seen them, and didn't you know they were attached close to the center before you wrote that letter of April 29th, 1884 to Henry Timken?

A. If I did see I didn't know they were attached close to the center.

X Q. 80. Had you ever seen one of their buggies before that date?

Jos. W. Buchanan
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A. I had.

X-Q. 81. And you knew the springs were attached close to the center of the spring bar, didn't you?

A. I knew the springs passed each other and were attached to the bar past the center, but as to how far past the center I did not know.

X-Q. 82. Didn't you know they were attached close to the center, similar to the Kierolf exhibit before you?

A. I did not know it at that time.

X-Q. 83. When did you find it out?

A. I didn't find it out.

X-Q. 84. Will you describe how that automatic spring was attached to the spring bar, and tell particularly how far the springs ran beyond the center on the spring bar?

A. I don't think I can describe it.

X-Q. 85. When you wrote that letter to Mr. Timken didn't you know there was a suit pending between him and the Columbus Buggy Co. for infringement of the Timken spring?

A. I don't remember whether the suit was pending at that time or not.

X.Q. 86. You knew it had been brought and had been pending before that?

A. I don't remember it. I know there was a suit, but not whether it was just before or just after it.

X-Q, 87. How many times have you examined what is known as the automatic spring?

A. I don't know that I ever examined it.

X-Q. 88. Will you swear that you don't know that in what is known as the automatic spring, the springs are attached near the center of the spring bar?

A. Yes.

X-Q. 89. Yes what? That the springs are attached near the center, or are not?

A. That I don't know.

Jos. W. BUCHANAN.

Joram Priest, being duly sworn, deposes and says as follows:

Joram Priest

Q. 1. State your name, age, residence and occupation.

A. Joram Priest. I was born in 1828. Grosse Pointe, Michigan. Am a carriage maker.

Q. 2. Please examine the pair of springs now shown you and state who made them and what they are intended to represent.

A. A cross spring.

Q. 3. Who made them?

A. I made them.

Q. 4. When did you first know of cross springs being used on side bar buggies?

Objected to as leading.

A. I can't remember the date exactly, but I think it is somewhere between 1870 and 1872 or 1873. I can't say which. It was before I left the shop on Randolph street.

Q. 5. When did you leave the shop on Randolph street, and where is Randolph street?

A. I can't tell what time I left the shop on Randolph street. Randolph street is in Detroit.

Q. 6, Can't you tell the year you left the shop on Randolph street?

A. No, I can't here. I have no books here to which I can refer. There are some books I have to which I could refer.

Q. 7. Where did you go after you left the shop on Randolph street?

A. Grosse Pointe.

Q. 8. Do you know what year you went to Grosse Pointe?

A, I don't recollect.

Q. 9. You say you first knew of cross springs for side bar buggies from the year 1870 to 1873. Who made the springs that you knew of at that time?

A. Myself.

Q. 10, Describe the springs that you made at that time. State how they were made and all you know about them.

A. Those springs are a very close example of those I made at that time. The first ones I made were made out of Concord springs. I cut the springs in two and let them run

to the edge of the spring body and bolted them to the bar. I took those springs off again and cut off the upper leaf where they were bolted and then bent the bottom leaf up to the bar and bolted the bottom leaf to the bar.

Q. 11. What did you do with the springs then?

A. I put them on to a buggy.

Q. 12. Whose buggy did you put them on?

A. Mr. Meisner's.

Q. 13. What kind of a buggy was it? State how the springs were located and how they were secured to the body and running gear.

A. It was a side bar buggy with half-elliptic springs at each end. The springs were one pair front and the other pair back. They were attached to the bars by shackles with links.

Springs referred to by the witness are hereby offered in evidence, and Notary will mark the same "Defendants' Exhibit. Priest Springs No. 1."

Exhibit objected to because it appears to have been made subsequent to the patents sued on.

Q. 14. How do these springs resemble or differ from the springs you put on Mr. Meisner's buggy as stated by you?

Objected to as leading.

A. They are the same kind.

Q. 15. You say the Meisner buggy had half elliptic springs. Were they on at the same time that these were on, or how was it?

A. Yes, they were on at the same time.

Q. 16. Do you mean that that buggy had two pairs of springs on at the same time?

Objected to as leading.

Question withdrawn.

Q. 17. Have you any knowledge of cross-springs different in construction from "Priest springs, No. 1"?

Objected to as leading.

A. No sir. Excuse me. Do you mean then or now?

Q. 18. Any time,

A. No different, only carrying the spring up to the center. I may say I know now because I make my springs dif-

Joram Priest

ferent from those.

Q. 19. When did you first know of cross springs on which the springs were carried up to the center as you have just stated?

A. About 1875.

Q. 20. Please examine the set of springs I now show you and state if you know who made these springs.

A. I made them.

Q. 21. What did you make them to represent, if anything?

A. Cross springs.

Q. 22. Whose cross springs?

A. I don't know.

Q. 23. When did you make those springs and exhibit No. 1?

A. I made them about a week or ten days ago.

Q. 24. For what purpose did you make them?

A. To exhibit the different styles that I had made.

Springs last shown the witness is offered in evidence and Notary will mark the same "Defendants' Exhibit. Priest Spring No. 2."

Objected to as irrelevant.

Q. 25. When did you first make the style of spring having the articulated joint like "Priest Spring No. 2"?

A. In 1875.

Q. 26. About how many did you make at that time in 1875, and what did you do with them?

A. I made and repaired and put under somewhere in the neighborhood of twelve bodies as near as I can recollect.

Q. 27. Can you give the names of some of the parties who bought or received buggies having springs like "Defendants' Exhibit. Priest Spring No. 2"?

Objected to as leading.

A. Alonzo Rolf, Pontiff Guyn, Thomas Van, Doctor Drake. I don't recollect any more.

Q. 28. What became of those buggies if you know?

A. Thomas Van had his own. Pontiff Guyn had his. I don't know about where the rest went to. Doctor Drake took one to Chicago and there was one went to England. That is all I recollect.

Joram Priest

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Q. 29. Did you sell more than one buggy having springs like the exhibit, "Priest Spring No. 2," to any of the parties you have named?

A. Rolf got several. I don't recollect how many.

Q. 30. Where was your shop when you made these buggies you have last referred to?

A. On Jefferson avenue between Brush and Bobean street. I don't know how to spell it.

Q. 31. In what city?

A. Detroit.

Q. 32. Do you know what years you had your shop on Jefferson avenue between Brush and Bobean streets?

A. 1875.

Q. 33. Have you examined your accounts recently for the purpose of refreshing your memory as to the dates at which any of these buggies to which you have testified were made and sold?

Objected to unless accounts are produced.

A. Yes sir.

Q. 34. State if you can the time you sold a buggy or buggies to any of the parties named.

A. I believe it was the summer about the 3rd of July I sold a buggy to Pontiff Guyn.

Q. 35. What year?

A. 1875.

Q. 36. Was that the first one you sold having springs like "Exhibit, Priest Springs No. 2"? If not, who was the first one to whom you sold such a buggy?

Objecten to as leading.

A. Thomas Van.

Q. 37. When did you sell Thomas Van his buggy?

A. Sometime before Guyn, but I can't tell the date.

Q. 38. When did you cease making springs for side bar vehicles like "Defendant's Exhibit Priest Spring No. 2"?

A. It was in the fall of 1875.

Q. 39. When did you sell the buggy which you say went to England?

A. In 1875. I think it went through Rolf. I don't exactly remember the date.

Joram Priest

Q. 40. When did you first learn that Henry Timken had a patent on cross springs for side bar buggies?

A. I think it was about three years ago.

Q. 41. Was that the first time?

A. The first time I ever knew anything about Timken's springs.

Q. 42. I now show you letters patent No. 256161, dated April 11th, 1882, the application for which was filed December 23rd, 1881, and ask you if you are the Joram Priest named as the inventor in that patent?

A. I was.

Objected to as irrelevant and as intending to impeach the witness.

Patent referred to is offered in evidence. Notary will mark the same "Defendants' Exhibit. Priest patent of April 1882.

Q. 43. Please examine the patent again and state whether it was before or after you signed the application for that patent that you learned that Henry Timken had a patent on cross springs for side bar buggies.

Complainant's counsel objects to the witness refreshing his memory from said patent because it does not appear that he wrote it or dictated it.

A. It was after it.

Q. 44. What was after?

A. Why after I learned that Timken had a patent.

Q. 45. Do you mean that it was after you learned that Timken had a patent that you signed the application for this patent, or do you mean that it was after you signed this application that you learned of Mr. Timken's having a patent? Please make your answer full enough to make it clearly appear what you do mean.

Objected to because it has been answered, and because repeating the answer in this shape suggests an answer to the witness.

A. I knew Mr. Timken had a patent when I made the assignment, when I assigned my right and interest in the spring.

Q. 46. How long before you assigned your right in the

Jordan Priest

spring did you learn that Mr. Timken had a patent?

A. About two months, I think.

Q. 47. How did you first learn that Mr. Timken had a patent on cross springs for side bar buggies?

A. I learned it from a livery man at Chicago. I saw some of Timken's buggies there. He gave a circular of Timken's with the date of the patent on it.

Q, 48. How did you come to sell your right in the spring shown in Defendant's Exhibit. Priest's patent of 1882" to Appleton S. Bridges of St. Louis, Missouri?

Objected to as irrelevant.

A. I agreed with Mr. Timken. I wrote to him about it. Mr. Bridges came and looked at the spring, then Mr. Timken and Mr. Eccles came.

Q. 49. State what you wrote to Mr. Timken. Give as fully as you can what you said in the letter you wrote to Mr. Timken.

Objected to because the letter is the best evidence and the defendants have not notified the complainant to produce said letter, which the complainant would cheerfully have done had he been notified that the defendants were going to take this witness' testimony.

A. I told Mr. Timken that I believed I had priority in the invention of the cross spring. I believe I told him I thought he ought to give me something as I understood he had made a good deal. That was about the substance of the letter I wrote him.

Q. 50. Did Mr. Timken reply to that letter?

A. Yes sir, he answered the letter.

Q. 51. Have you the letter with you, or can you produce it?

A. I don't know. I haven't got it with me and I don't know sure that I can produce it.

Q. 52. You say Mr. Bridges called upon you and that afterwards Mr. Timken and Mr. Eccles called. Where did they call.

A. Mr. Bridges called at Grosse Pointe. Mr. Timken called at Grosse Point. I saw Mr. Eccles at the Kirkwood House in Detroit.

Joram Priest

Q. 53. State as nearly as you can what conversation took place between yourself and Mr. Bridges and between yourself and Mr. Timken or Mr. Eccles in regard to your invention or the alleged invention of Mr. Timken at these interviews.

Objected to as irrelevant.

A. Mr. Bridges told me that his father-in-law requested him to stop and look at the spring. That was all I had to say with him. Mr. Timken, I saw him, and he looked at a wagon I had in the shop and he said he did not know that he was under any compliments to buy it or give anything for it. He told me that he had a Tilton patent and that that was a cross spring patent. He invited me down to Detroit, and there was quite a talk about the time and he asked me what I wanted. I told him that as he had a patent that I had no interest in the spring and couldn't make the spring. I told him if he chose he could give me what he liked for what interest I had in it. I sold him my right in the spring for four hundred dollars.

Q. 54. You say he looked at a wagon you had in your shop. When was that wagon made? Did you have any more wagons in your shop with these springs on?

A. I was making that wagon when he was there. No.

Q. 55. Have you your books and accounts with you, showing entries when you made the different buggies you have spoken of or can you produce such books or accounts?

A. I have no books with me nor accounts. I am not positive whether I can produce books or not.

Q. 56. Will you telegraph to your home tonight and ascertain whether you have such books or accounts and have them sent here if you have them?

A. I don't think it will be any use for me to do so because I don't know anybody there who knows anything about them.

Adjourned to 10 o'clock a. m. Tuesday, March 1st, 1887.

Met pursuant to adjournment. Present same parties.

Q. 57. Describe particularly the gearing of the Meisner buggy before you attached the springs like "Exhibit. Priest's

Joram Priest

Springs No. 1." State how the body was attached to the gearing.

A. The side bars was attached half elliptic springs back and front, bars clipped to same springs with two wooden bars running across from side bar to side bar and clipped to the side bars for the purpose of hanging the body on. I then, as Mr. Meisner said they were too rigid, introduced what was called at the time the "grasshopper" spring. Those grasshopper springs were not applied as I applied for they used to extend from the front of the body and shackled to the back axle, and vice versa to the head bar. I shortened the same kind of springs and applied them crossways of the bottom, shackling to the bars with the ordinary link shackle.

Q. 58. When did you put on the "grasshopper" springs as you call them Was it before or after you had applied springs similar to "Exhibit. Priest's Springs No. 1"?

A. Before.

Q. 59. Please state fully how you came to make the invention illustrated in Defendants' Exhibit. Priest's Springs No. 2. State all the facts in relation to this matter.

A. In 1875 I rented a shop on Jefferson avenue next door to Mr. Rolf. Mr. Rolf got an order or contract to build a buggy, what is now termed a Brewster buggy. He made a bargain with me to build the same. When I had the buggy pretty near finished in the smith shop a man came in and told me there was a patent on that buggy and I would have to pay twenty dollars royalty. I told Mr, Rolf and the man who was going to have the buggy that I couldn't build the buggy unless they paid the royalty. Mr. Rolf told me he had received some money on the said buggy. I told him I wouldn't make the buggy. He said I would have to make it. During the time I thought of the Meisner spring and I saw where there was an improvement to be made and I showed it to Rolf. I asked him if he thought it would answer. He said he didn't know. I told him I had better try it and see. I did apply it and the man seemed to like it well enough.

All that portion of the answer relating to what others told him objected to as hearsay, and that portion where it is said "the man seemed to like it," objected to as a conclusion and not a fact.

Joram Priest

Q. 60. State if you know what became of that buggy.

A. I don't know. I saw it a few times afterward on the street, but I don't know what became of it.

Q 61. In what respect, if any, did the springs on that buggy differ from the springs "Exhibit. Priest's Springs No. 2"?

A. The same.

Q. 62. How were these springs attached to the side bars on that buggy?

A. With a Brewster shackle as it is termed now.

CROSS-EXAMINATION.

Counsel for complainant not being informed that this witness was to be examined until he came into the room and was about to be sworn, did not bring documents and exhibits with him which he has in St. Louis, to properly cross-examine this witness, and if said documents do not come before he gets through cross-examining, he begs the privilege of recalling said witness to cross-examine him in full at some future time.

Counsel for respondents states on record as he formerly stated to counsel for complainant orally last week that he would endeavor to take all the testimony he desired to take in this cause if it were possible to get the witnesses here, and as every witness that has been examined from last Wednesday to the present time have been witnesses from abroad, several of whose names, like the witness here, are set up in the answer and amended answer, it is believed opposite counsel has had ample time to prepare for cross-examination especially as he has already stated that he cross-examined this witness in a prior suit, but to accommodate counsel and save expense the witness will be retained here a reasonable time, affording a full opportunity to cross-examine. If through any unforeseen accident he should not receive the papers he desires will consent that the witness may be recalled here at complainant's expense for such further cross-examination as he may desire.

Complainant's counsel further states that since commencing taking this testimony he has frequently asked de-

Joram Priest

fendants' counsel to give him the names of the witnesses he expected to examine, and although the counsel for defendants gave him the names of some other witnesses, he never mentioned that he expected to examine Mr. Priest, the present witness, and that plaintiff's counsel did not understand defendants' counsel that he would take all his testimony here.

Defendants' counsel says that he did not know until yesterday morning that he conld get this witness here, a letter having been mailed to him on the 19th of February, and not received, as the return letter shows, until the 26th. One of the defendants having gone personally to Grosse Pointe and brought the witness here yesterday. It is also the recollection of defendants' counsel that he told complainant's counsel that he would examine this witness if it were possible to get him here.

X-Q. 63. Mr. Priest, the first spring which you put on Meisner's buggy, that is the first spring which you ever made, was for side bar buggies, I believe I understood you to say.

A. Yes sir.

X Q. 64. Do you remember how long that spring was?

A. I do not.

X-Q. 65. You say it was made from old Concord springs, and when you first put it on, you then took it off and put it on differently. Now, you took it off because it didn't work to suit you, didn't you?

Objected to as not correctly representing witness' testimony on the point referred to.

A. Yes sir. Not the work—it didn't suit the party that I made it for.

X-Q. 66 When you put it on the second time you cut the top leaves off shorter than the lower or main leaf and extended the lower or main leaf, bending it up and attaching it to the spring bar towards the end so as to give it spring action between the two points of contact with the spring bar, did you not?

Same objection.

A. No sir, I cut it off for the purpose of lightening it up at the side of the body, giving it a lighter appearance.

X Q. 67. Then you say on your oath that the springs

which you made for Meisner did not have any spring action between the two points of contact on the spring bar?

A. No.

X-Q. 68. Can you tell what the distance was on those springs between the points of contact on the spring bar?

A. I should judge it was about six inches or seven inches.

X-Q. 69. And fastened with one bolt at each point of contact?

A I think there were three bolts in them.

X-Q. 70. You don't know whether there were three bolts?

A. I feel very positive there were three bolts.

X-Q. 71. You mean three bolts in the spring?

A. I mean three bolts in the spring attaching it to the body bar—the spring bar.

X-Q. 72. Why didn't you make three bolts attaching to the spring bar in this exhibit?

A. I thought it wasn't necessary for an exhibit.

X-Q. 73. Then this exhibit does not represent that spring?

A. It does, excepting the bolts.

X-Q. 74. Did you ever make a sworn statement for Mr. Timken?

A. Yes sir.

X-Q. 75. Was there a draught in that sworn statement?

A. I believe Mr. Eccles made one.

X-Q. 76. Did you state in that sworn statement that you never made springs prior to 1877 for side bar vehicles that did not have spring action between the two points of contact with the spring bar?

Objected to, 1st: The statement is not produced and shown to the witness, and 2nd: Because the statement itself is the best evidence.

A. Let me understand. The bearing or fulcrum from where it left the spring bar to the outer edge of the Meisner buggy was six or seven inches, and then raised and went to the side bar. The springs that I made in 1875 was made with a bearing at the center of the bar. The springs that I made

Joram Quist

on the Meisner buggy, the bearing was six or seven inches from the outer edge of the body. I do not know as I did.

X-Q. 77. Will you swear that you didn't make such a statement under oath?

Same objection.

A. No.

X-Q. 78. Would you be more likely to remember then the construction of the Meisner spring than you would now.

Objected to for the reason that it does not appear that the witness' attention was called to the Meisner spring at the time he made the sworn statement referred to and for the further reason that if any such statement was obtained by Mr. Timken it was an unfair advantage to bolster up a worthless patent.

A. Just the same.

X-Q. 79. Time don't make any difference in your memory then?

Same objection.

A. O, I think it does in some things.

X-Q. 80. The farther off a thing is the better you can remember it?

A. No, I think not.

X Q. 81. How wide was the body of the Meisner buggy?

A. It was a one-man buggy, and I don't recollect, but think it was somewhere in the neighborhood of twenty inches.

X-Q. 82. Were those springs bent up around the side of the body or attached right under the body close to the side, in the Meisner buggy?

A. They were attached to a spring bar with a little more bend than they naturally had just where they left the body, and were bolted to the spring bar, then running nearly straight to the side bar shackle, the shackle link, it might be said.

X-Q. 83. How were they attached at the fulcrum, by a bolt or a clip?

Objected to as misleading, it having been already stated by the witness that these springs had no fulcrum.

Joram Priest

A. Bolts.

X-Q. 84. When was that statement made which you gave to Mr. Timken? Wasn't it made at the time he bought your invention and paid you the four hundred dollars?

Objected to, as the statement will show for itself.

A. I wrote Mr. Timken a letter before that and stated in that letter that I believed I had priority of invention of that spring and thought he ought to give me something as he had made so much out of it.

Objected to as not responsive to the question.

Adjourned to 2 o'clock same day.

Met pursuant to adjournment.

X-Q. 85. I didn't ask you what you wrote to Mr, Timken, but asked you when that statement was made, meaning the statement under oath made at Detroit, when he paid you the four hundred dollars?

A. What the statement was?

X-Q. 86. Question repeated.

A. I don't know when the statement was made. It was made the the time he paid me the four hundred dollars. I don't remember when that was.

X-Q. 87. Wasn't it at the same time that you made the application for the patent on the double acting springs which you assigned to Appleton S, Bridges?

A. I don't recollect that I signed any application for a patent. I supposed I signed a bill of sale for the rights I had in the spring.

X-Q. 88. Do you mean to swear that you didn't make an application and sign the drawings about December 23rd, 1881 for a double acting spring?

A. I supposed I was assigning my right for such a spring to Mr. Timken or Mr. Bridges.

X-Q. 89. Do you mean to say that you did not, in December, 1881, sign an application for double acting springs or cross springs for side bar buggies, and do you mean to say that you did not sign the drawing for such application, or do you mean to say that you have forgotten which?

A. I know I signed the drawings of such spring, but do

Joram Quest

not know that I knew it was for an application for a patent.

X-Q. 90. Do you mean to say that you didn't swear to a specification for a patent on said springs, or do you mean to say that you have forgotten?

A. I don't recollect whether I did or not.

X-Q. 91. Will you swear you didn't?

A. No.

X-Q. 92. Will you swear you did?

A. No.

X-Q. 93. Will you swear that you have forgotten whether you did or not?

A. I don't know whether I did or did not. I can't tell.

X-Q. 94. Did you make a sworn statement about December 23rd, 1881, which stated that all the cross springs which you had made prior to 1877 were double acting springs and moved on a fulcrum which rested on a spring bar, or words to that effect?

Objected to as the statement itself is the best evidence, for the further reason that this matter has been very fully gone into before and is therefore a needless repetition, and improper.

A. I don't recollect of anything of that kind.

Counsel for complainant hands the witness a pen sketch and asks him to examine it carefully and asks him to state if that is not a correct drawing or a counterpart of the drawing attached to the affidavit which he made about December 23rd, 1881, showing the only kind of cross springs for side bar buggies which he had made prior to 1877.

Objected to, as the affidavit itself is the best evidence.

A. I made several sketches or drawings for Mr. Timken, and this is a sketch of one of them as near as I recollect.

X-Q. 95. Is that a sketch or a counterpart of the drawing contained in that affidavit, or is it not?

A. I believe it is a part of it.

X-Q. 96. What is left off of it, if anything?

Same objection.

A. The sketches of the springs that were produced before this from the fulcrum where it was clipped back was bolted solid to the bar.

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X-Q. 97. I didn't ask you about the springs. I asked you about the drawing. I now repeat, does not that sketch which you hold in your hand show springs attached to the spring bar in exactly the same way as the drawing which was attached to the affidavit which you made in December 1881?

Objected to for the reason before stated, and for the further reason that the question has been fully answered, and for the further reason that the witness did not make the sketch attached to the affidavit inquired about.

A. I couldn't say.

X-Q. 98. Will you swear it does not?

A. No.

X-Q. 99. You mean to say then that you don't remember anything about the drawing in that affidavit?

A. I mean to say that I don't know whether it was some of the other drawings I gave or saw.

X-Q. 100. Do you or do you not remember anything about the drawing which you attached to that affidavit.

A. I don't recollect.

X-Q. 101. Was the four hundred dollars which Mr. Timken paid to you paid for this affidavit of 1881, or was it paid for your invention in double acting cross springs?

A. It was paid for my invention, I believe, as I recollect it.

X-Q 102. Well, do you know?

A. All I know I got the money and I signed the papers.

X-Q. 103. Which paper do you remember of signing?

A. There was I think two papers, I think. or more, and I don't know which paper I signed, first or last.

X-Q. 104. Why did you say in your last answer but one that you got the money and signed the paper, when now you say there were more than one paper?

A. They were all signed together one after another. I don't recollect how many there were.

X-Q. 105. You know how many you swore to?

A. I don't.

Complainant asks the Notary to mark the sketch "Complainant's Priest's Exhibit 1."

X-Q. 106. You say you can't tell when you went to

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A. I think somewhere in the neighborhood of two years. I think nearly that.

X-Q. 135. What did you do at Grosse Pointe during these two years?

A. Blacksmithing.

X-Q. 136. Did you break up at Randolph street, or burn out?

A. Broke up.

X-Q. 137. Did you go into bankruptcy?

A. I did four years before.

X-Q. 138. What has become of Meisner?

A. I don't know.

X-Q. 139. Did you keep any books while you were in Grosse Pointe blacksmithing, after you broke up?

A. Yes sir.

X-Q. 140. How long were you on Jefferson avenue before you made the spring for Guyn?

A. It was in the spring of 1875. I don't know the date exactly.

X-Q. 141. Who saw the Meisner spring except you and Meisner—any body?

A. Yes. The Richley boys and Mr. Richley, some of them must have seen it.

X-Q. 142. Did you ever make a model or a full sized gear for Mr. J. W. Firestone or for the Columbus Buggy Co.?

A. Yes sir.

X-Q. 143. What did you make it to represent?

A. The Meisner buggy gear.

X-Q. 144, Did you write to them that you had evidence that would defeat the Timken patent and offer to testify for them, or words to that effect?

Objected to as immaterial.

A. If they said so, it's a lie. I never did.

X-Q. 145. What did you quit manufacturing springs like your exhibit 2 for, in 1875?

Objected to as misrepresenting witness' testimony.

A. I couldn't afford to pay the rent for the shop where I was on the avenue.

X-Q. 146. Well, the spring that you made on Randolph

street wasn't satisfactory to you as a new invention, was it?

Objected to as immaterial.

A. It suited me very well.

X-Q. 147. You thought it worked perfectly and was just the thing, didn't you?

A. No.

X-Q. 148. How wide was that vehicle—I mean Meisner's—between the side bars?

A. I should judge it was twenty five or thirty inches. I don't recollect exactly.

X-Q. 149. How wide did you say the body was?

A. Well, I think it was somewhere in the neighborhood of twenty inches. It was a one-man wagon.

X-Q. 150. Did you ever do business on Randolph street before or after the time you broke up?

A. I did business on it before I broke up and when I broke up I quit.

X-Q. 151. If that spring worked satisfactorily why didn't you put it on Alonzo Rolf's work when you were on Jefferson avenue?

A. That link was an objection. It let the body go sideways too much and made a rattling noise.

X-Q. 152. That exhibit you made for the Columbus Buggy Co. was a great deal longer than your exhibit 1, wasn't it?

A. Yes, that was a full sized gear.

X-Q. 153. From the time you were on Randolph street until you made that affidavit in 1881, you had been experimenting with various kinds of cross springs, hadn't you?

A. I hadn't touched any cross springs from the time I left Randolph street until I came to Jefferson avenue.

X-Q. 154. Why did you say that you hadn't touched any cross springs from the time you left Randolph street until you came to Jefferson avenue? Why didn't you answer my question?

The preamble to the last question objected to and the whole question is objected to as a lecture to the witness.

A. I hadn't made none from that time.

X-Q. 155. My question was if you had not been experi-

menting with cross springs at various times from the time you left Randolph street until you made the affidavit in 1881. Please answer that.

A. Yes I experimented with them after I got on to the avenue up to that time. I made them in different ways.

X-Q. 156. What avenue do you allude to?

A. Jefferson evenue.

X-Q. 157. And you were experimenting with cross springs at the time Mr. Timken called on you at Grosse Pointe in 1881, were you not?

A. I was making springs at that time similar to No. 3. All the difference between No 2 and No. 3 is, instead of this bolt going through the joint the springs are fastened to the bar by a T headed bolt, the bolt going between them and fastened at either side.

X Q. 158. You had another kind of a spring on a gear, different from any of these in December 1881 when Mr. Timken called upon you at Grosse Pointe?

A. I don't know. I've had so many different kinds, I don't know.

X-Q. 159. But you never made one since you were on Randolph street like the one you put on Meisner's wagon, did you, and never made but one there like it?

A. That is all.

X-Q. 160. Will you describe the one that you had on the trusses in your shop at Grosse Point in December 1881 in the blacksmith part of the shop?

A. As far as I remember I think it was like No. 2 with the exception of— I think it was bolted down here without a hinge. I am not positive about it. I have an idea it was something like the drawing Mr. Eccles had here. That's all I recollect about it.

X-Q. 161. Are you positive it was bolted at the end of the cross bar instead of being on a hinge there?

A. I ain't.

X-Q. 162. Do you know whether that one was connected to the side bar by a swinging shackle or a link?

A. It was connected by a shackle.

X-Q. 163. Do you know whether you had one at that

time that you were experimenting with, that had no side bars?

A. No sir.

X-Q. 164. Do you remember of giving your testimony at Detroit in the suit of Henry Timken against the Columbus Buggy Co.?

A. Yes sir.

X-Q. 165. Do you remember of stating at that time that you made the Pontiff Guyn buggy in 1876?

A. No.

X-Q. 166. Will you swear that you didn't so state in that deposition?

Objected to as the deposition will show for itself.

A. No.

X-Q. 167. If you did so state, would it be true or false?

A. I couldn't say. I could substantiate the fact better by my books.

X-Q. 168. Didn't you have your books with you when you testified there?

A. No sir.

X Q. 169. Didn't Mr. Firestone release you from the stand and send you back to Grosse Pointe to get your books, and didn't you go to Grosse Pointe and finish your testimony next day by referring to your books?

A. I didn't see the books. I couldn't find them at the time. They were old books and throwed around and I couldn't find them at the time.

X-Q. 170. Did you ever want or ask, about the time depositions were being taken in Detroit in the case of Henry Timken against the Columbus Buggy Co., Firestone—J. W.—the attorney for the Columbus Buggy Co., to pay you money for testifying for him?

A. I never asked Mr. Firestone or Mr. Timken either. I never spoke to either of those gentlemen on such a subject.

X-Q. 171. Where were you when the officer came out to Grosse Pointe to subpoena you as a witness in that case and did you ever see the subpoena or a copy of it? I mean the first time we were there taking depositions.

A. At that time I suppose I was in Canada. I never saw the subpoena to my knowledge.

X-Q. 172. Did any of your family or any one else inform you that a subpoena was left at your house at Grosse Pointe by a United States deputy Marshal commanding you to come and testify in that case?

A. I don't know anything about it.

X-Q. 173. How did you know that they were after you as a witness?

A. I didn't know it.

X-Q. 174. Didn't you know that they wanted you as a witness the first time we were there taking depositions?

A. Well, they told me they thought they would want me because they wanted to get all the facts about the time of the first cross springs I made up to the present time. But I didn't know they had any suit pending between them and Mr. Timken at the time. They got all the information I could give them as regards cross springs. As I had a small interest in the spring I didn't like to testify against Mr. Timken, and that was why I went to Canada.

X-Q. 175. Then you went to Canada to keep from testifying?

A. Yes.

X-Q. 176. You didn't give your testimony the first time we were there, did you?

A. Who do you mean by the first time we were there?

X-Q. 177. I mean myself and Mr. Firestone taking depositions, and the time you went to Canada.

A. I believed I answered all the question has.

X-Q. 178. I ask you again whether you gave your testimony the first time we were taking depositions, Mr. Firestone and myself, in Detroit, and the time you went to Canada, or whether you gave it the second time we were taking depositions there?

A. Well, I believe it was the same both times as near as I can recollect. I don't recollect any difference.

X-Q. 179. Do you mean to say you gave your deposition both times we were there?

A. I don't know I am sure. I know I was called in both times they were taking testimony.

X-Q. 180. Don't you know that the first time Mr. Fire-

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stone and I were taking depositions in Detroit in the case of Timken against the Columbus Buggy Co., that you went into Canada and remained there during the day time continuously until we went home?

A. Yes, I was there pretty near a week.

X-Q. 181. Wasn't you there pretty near ten days?

A. I don't know. I didn't keep track of the time.

X-Q. 182. At what hotel did you stop in Canada?

A. I don't know. I telegraphed Timken where I was if he wanted me.

X-Q. 183. You wanted him to pay you money to stay there, didn't you?

A. I had money enough of my own at the tavern at that time.

X-Q. 184. What did you want Timken to come and see you for? Did you want him to pay you money to stay there and not testify?

A. No sir. I wanted to stay out of the way because Firestone had boasted around that the Columbus folks were going to bust the Timken patent, and I thought it was to my advantage not to have it busted, so I thought keeping out of the way would be a benefit to myself. I had an interest in the Timken patent, the privilege of making four hundred set a year.

X Q. 185. When did you first conclude that you had no interest in it?

Objected to as it does not appear so far in the testimony that the witness has no interest in it.

A. I never concluded so. I suppose I have to day.

X-Q 186. You testified the second time voluntarily, didn't you?

A. I never testified to my knowledge only when I was summoned to do so.

X Q. 187. Then you didn't testify in that case voluntarily as you say because you have an interest in the Timken patent. Why do you testify now voluntarily and come all the way from Grosse Pointe to do so? Is it because you want the Timken patent broken now?

A. I don't give my testimony voluntarily and I don't

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want the Timken patent broke either if it can be avoided,

X-Q. 188. You mean to say you didn't come down here of your own free will to testify for the defendants?

A. I didn't have to have either marshal or sheriff fetch me.

Adjourned.

X-Q. 189. You wouldn't do anything now voluntarily to defeat the Timken patent any more than you would have done when we were taking depositions in Detroit the first time, would you, and you don't want the patent defeated now any more than you did then, having the same interest in it now that you had then?

Objected to as improper, the witness being under oath, it is immaterial what his feelings may be in the matter,

A. No.

X Q. 190. Mr. Timken nor Mr. Firestone, neither one induced you to go to Canada at the time we were taking depositions, did they?

A. No sir. I would say if the court will allow me, I will make a few remarks as regards that matter. There was a gentleman came up and he wanted to know if I had any cross spring buggies. I told him I had not. He wanted to know if I knew where there were any. I told him I did not. Sometime after that Mr. Firestone came, and another gentleman, and wanted to know if I could build them a cross spring buggy, somewhat like I had built. I told them I would. He asked me if I knowed if I had any old cross spring buggies. I told him I believed there were some in the city. He said he would call and see me again. He did come again soon after with a man of the name of Richle. Richle had told him that he knew I had built a buggy for some Frenchman up in Grosse Pointe. I met Mr. Firestone and Mr. Richle on the road as I was going to Detroit. Mr. Richle told Mr. Firestone that this was Mr. Priest. Says he, "Mr. Priest, if you will show me one of those old buggies you built with cross springs, I'll give you fifty dollars." He gave me the fifty dollars. We turned around and went to Pontiff Guyn and saw the Pontiff Guyn cross spring buggy. I left him there and went to town

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and didn't see him no more for some time. Mr. Peters and Mr Firestone, they came to Grosse Pointe and wanted to know about the time I made that buggy for Pontiff Guyn. They then questioned me as to the earliest period and the different kinds. I didn't know at that time there was any trouble between Mr. Timken and the Columbus Buggy Co.

Answer objected to as not responsive to the question.

X-Q. 191. Then you were willing to show at that time all you knew about your spring having priority to Timken's spring for fifty dollars?

Objected to as misleading and a misconstruction of the witness' testimony for the reason that it does not appear from the testimony so far given in the previous answer that he had any interest in the Timken spring or had any knowledge that such a man as Mr. Timken was in existence.

In order that it may appear to the court that the objection above taken as well as the other objections noted by defendants' counsel were not intended to influence the answers of the witness, defendants' counsel states the objections were spoken in a low tone and that the witness is quite hard of hearing and asks the Notary to state whether these are not the facts, and if the Notary has any doubts on the subject, he is requested to ask the witness whether he has heard any of the objections.

The Notary here states on record that the witness is quite deaf, making it necessary to put all questions to him in a loud tone of voice. The Notary does not think the witness has heard the objections made by defendants' counsel, but will ask the witness as to that point.

Question by the Notary—Have you heard the objections made by Mr. Murray to the questions asked by Mr. Eccles and dictated to me?

A I heard the reading, but my ears is so dull of hearing that I can't hear very well.

Counsel for the respondents asks the Notary if he has read the objections after they were made and to state whether he has or not.

The Notary states that he has not read the objections after writing them down.

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X Q. 192. Havn't you heard any of the objections made by counsel to the questions since I commenced cross-examining you?

A. I can't say that I understand any of the objections. I can't hear good enough unless it is spoke very loud.

X-Q. 193. I didn't ask you if you understood them. I asked you whether you heard them?

A. I didn't hear any.

X-Q. 194. When did this conversation just detailed by you with Mr. Firestone occur?

A. I don't recollect just the date, but it was somewhere near two years or better ago.

X-Q. 195. Was it before or after you had acquired the interest in the spring you speak of?

A. After.

X-Q. 196. Did you make these exhibits here voluntarily or were you compelled to make them?

A. I was paid to make them.

X-Q. 197. How much were you paid?

A. Fifteen dollars.

X-Q. 198. Then you are willing to sell all the interest you have in the springs for fifteen dollars and make exhibits besides?

Objected to as an unfair construction of the witness' answer, and as incompetent and immaterial.

A. Yes.

X-Q. 199. You havn't much will power, you do pretty much what people ask you don't you, isn't that so?

Same objection.

A. I make anything that I know how to make if they pay me for it if I have a right to make it.

X-Q. 200. And you made this Priest exhibit Nos. 1 and 2, voluntarily to be used as exhibits to testify from in order to defeat the Timken spring patent, didn't you?

Same objection.

A. I made it to exhibit what I had made before.

X-Q. 201. And to show that your invention of the spring was prior to Timken's?

A. Yes.

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X-Q. 202. And you know if that is proven it will defeat the Timken patent, don't you?

A. No sir.

X-Q. 203. Did you ever write a letter to Appleton S. Bridges in 1881?

A. Not as I know of.

X-Q. 204. Do you mean to say that you did not or if you did you have forgotten it—which?

A. I have forgotten it. I wrote one to Mr. Timken, or two.

X-Q. 205. Did you think that these exhibits and your testimony would help to defeat the Timken patent when you made them?

Objected to as calling for a conclusion of law.

A. No sir.

X-Q. 206. Did you think that the exhibit which you made for Firestone, and the testimony which you would have given, had they caught you the time you went off to Canada, and when Firestone and I were taking depositions in Detroit, would have helped to defeat the Timken patent?

Same objection.

A. I did, The reason I thought it would was because Mr. Firestone told me this spring was entirely different. He tried to explain it to me. I had already told Mr. Firestone before the various ways that he pretended that he had got all the different ways I had tried and knew how to make the springs. In that early conversation he had asked about this and that, and that had brought it out about the different styles. He wanted to know if I had any records of it. I told him I didn't know but what there was somewhere, but where I couldn't tell at that time. At the time of the examination, the time I went to Canada, I learned in the city that the Columbus folks was agoing to bust the Timken patent and that the marshal had gone to fetch me from Grosse Pointe. Then I went to Canada. Firestone before had always said it wasn't like Mr, Timken's.

X-Q. 207. And you didn't think before that that you could defeat the Timken patent with your testimony?

A. No.

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X-Q. 208. Did you ever write a letter to Mr. Timken, bearing date Sept 27th, 1881, enclosing a sketch of your spring?

Objected to because the matter inquired about has been fully gone into before, and because the letter is not produced, which is the best evidence.

A. Yes sir, I believe I wrote him two letters. I think I wrote him two letters.

X-Q. 209. Did that letter contain more than one sketch of your invention?

A. I couldn't say. I believe it did. However I stated, I believe, that I had made them different ways and tried to explain, I think.

X Q. 210. Did you at the time you wrote that letter, know anything about the Tilton spring?

A. No sir, not at that time. Mr. Timken told me afterwards when I saw him. He spoke about the Tilton spring, and Mr. Eccles. and told me he bought the Tilton spring. I had never seen it.

X-Q. 211. Had you ever seen a patent office drawing of it?

A. The first ones I saw of it was in the Coach Makers' Magazine about the time that Timken and the Columbus Buggy Co. had a suit.

X-Q. 212. Did you ever sell Pontiff Guyn before September 27th, 1881, more than one buggy with cross springs on it?

A. I never sold him but one buggy.

X-Q. 213. Did you state to Mr. Timken in either of those letters that you made the Pontiff Guyn buggy in 1873?

A. I possibly might, not having anything to refer to, but after looking at things to refer my mind I found it was later.

X-Q. 214. Didn't you know then as well as you do now, when you were on Jefferson avenue in Detroit?

A. I ought to have known if I had figured up the time. I didn't have it in my mind at the time.

X-Q. 215. If you did state you made it in 1873 is it true or false?

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Objected to as incompetent.

A. It must be false because I made it at a later day.

X Q. 216. What was that letter of September 27th, 1881, written in answer to?

Objected to because the letter is not produced nor its contents stated.

A. I won't be sure whether that was the first letter I wrote or not, but I wrote one telling Mr. Timken from a circular I saw that I made those springs before his patent and that I understood he had made a good deal of money out of it and I thought he ought to give me something. In that letter I believe I stated something about the styles I had made. He answered that letter and wanted me te give him a drawing or sketch of the spring. I done so. Mr. Bridges called upon me soon after that. He saw a buggy with cross springs and he didn't say very much about it, Mr. Eccles and Mr. Timken came afterwards and invited me to Detroit, and agreed on four hundred dollars to give me for my interest in the spring if I had any.

X-Q. 217. State all that Mr. Bridges said to you or you to him about the spring.

A. There was very little said, and I don't recollect what was said particularly.

X-Q. 218. Did that letter which you wrote to Mr. Timken give him a correct sketch of your spring as you had made it, or did it give him a sketch intended to deceive him?

A. I calculated to explain the matter to him as well as I could, how I had made them.

X-Q. 219. Did you intend to tell him in that letter all the ways in which you had made the springs or did you intend to keep back some?

A. I intended to explain it so he would get an idea of the different ways, but whether I gave all I don't know. I had stated in the first letter something as regards that, but I don't know now. I thought at the time from what I said in the first that he would pretty near understand what there was.

X-Q. 220. Did you in that letter or either of your letters to him make a sketch showing "Defendants' Exhibit. Priest's

Springs No. 1"?

A. I believe I told him in the first letter that I thought I had made almost a fac simile to his spring and went on and I may have said something more. If it is necessary I have a copy of that letter.

X Q. 221. Have you got it with you?

A. No sir.

X-Q. 222. You say you believed you said so in that letter?

A. Yes, I believe that.

X-Q. 223. Do you know whether you said so or not?

Objected to as the letter is the best evidence and its loss has not been accounted for.

A. I couldn't swear positively. To the best of my recollection I did state that fact.

X-Q. 224. Is this your signature?

A. Yes sir. That was my second letter.

X-Q. 225. Have you read this letter?

A. Yes sir. I will say the date doesn't corroborate the time I gave. It does for when Mr. Woodhall wrote to me inquiring about the spring, it was after I had made negotiations with Mr. Timken. Instead of being 1873 the first one was on Randolph street and the second one was on Jefferson avenue in 1875.

X-Q. 226. Did you write the words in this letter "Now sir, the last buggy I made of this style was in 1873, July 2, sold it to Pontiff Guyn, Wayre County, Michigan." Look at the letter and tell me whether you wrote that or not?

A. The date of this should have been 1875, July. Those others are all correct. I wrote the letter.

X-Q. 227. Look at the year 1873 in that letter and tell me whether you wrote it or not?

A. I wrote it. It was a mistake. It should have been '75 instead of '73.

X-Q. 228. Is that February 2 or July 2.

A. July. At least it was about that time he gave me the order for the buggy. He got the buggy sometime afterward.

X-Q. 229. I didn't ask you when he got the buggy. I

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asked you whether that writing there is February 2 or July 2?

A. I calculate it is July

X-Q. 230. Look at the sketch in that letter and tell me if you made that sketch.

A. Yes, I believe I did.

X-Q. 231. Did you make a copy of that letter before you sent it?

A. Of this? No sir.

Adjourned.

X-Q. 232. What is the date of that letter you have just been testifying about? Look at it and see.

A. July 18th, 1881. September 27th, 1881. 1881, September 27th.

X-Q 233. Which is it, July 18th or September 27th, 1881?

A. September it seems to be.

X-Q. 234. What day.

A. I don't know.

X-Q. 235. Will you look at the top of that letter and tell me the date of it?

A. September 27th.

X-Q. 236. What year?

A. 1881.

X-Q. 237. Take this pen sketch which I hand you, and place it over the pencil sketch in the letter and tell me whether it is not a fac simile of the sketch in the letter?

A. Yes sir.

Complainant's counsel hands the Notary the tracing or pen sketch and asks him to mark it "Complainant's Priest's Sketch 2."

Complainant's counsel hands the Notary the letter dated September 27th, 1881, and asks him to mark it "Complainant's Priest's Exhibit 3."

X Q. 238 Look at this letter which I hand you and tell me if that is your signature? I didn't tell you to read it.

A. I want to read it to see.

X-Q. 239. Is it necessary for you to read the whole letter in order to tell whether that is your signature or not?

A. Yes sir. That is my writing and my name.

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X-Q. 240. Couldn't you tell whether that was your signature by looking at it without reading the letter?

A. I believe I could.

X-Q. 241. Why didn't you do it then without reading the letter when I asked you?

A. You handed me the letter to read and my name, and that was a privilege I took.

X-Q. 242. What is the date of the letter I just handed you and which you read?

A. I didn't notice the date.

X-Q. 243. Look at it and see what the date is.

A. September 3rd, 1887, no I think it must be 1881, I think it is one.

X-Q. 244. You think it is 1881?

A. Yes.

X-Q. 245 You have read the letter and know what it contains. Is it true or false?

A. It is true with the exceptions of the date of 1873 that I don't know of any buggies running.

X Q. 246. Why did you state in that letter. "I beg to inform you that precisely the same kind of spring in every minute respect was made and sold by me in the year 1873, and which springs are now to be seen and in use in my own neighborhood made and sold by me at that particular time, 1873?"

A. The date was wrong. I made a spring and put it under the Meisner buggy very near like the Timken spring and that must have been somewhere in '70 or '71 or '72. The next springs that I made after that, that I made in Grosse Pointe and then at Detroit next, on Jefferson avenue.

X-Q. 247. You don't allude to the Meisner spring in this letter, do you?

A. Yes sir. The next that I made at Grosse Pointe had more curve in than this spring.

X-Q. 248. This year, 1873 is wrong then, is it?

A. Yes, it should be before that as near as I can place it.

X-Q. 249. The Meisner spring was not in existence in 1881, was it?

A. I was told it was but I couldn't find it.

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X-Q. 250. What should this 1873 be in this letter?

A. It should have been 1875.

X-Q. 251. Did you keep a copy of this letter?

A. I believe I have a copy of the first letter I wrote to Mr. Timken.

X-Q. 252 Did you make a copy yourself?

A. No sir.

X-Q 253. Who did?

A. The original wrote a letter for me, Alexander Mecke, and I copied this from it.

X-Q. 254. Who is Alexander Mecke?

A. He lives up in Grosse Pointe He was City Auditor of Detroit. I don't know what he is doing now.

X-Q. 255. How did you come to get him to write the original? Why didn't you write the original yourself?

A. I am a very poor writer.

X-Q. 256. Is that all the reason?

A. That was all.

X-Q. 257. Look at "Complainant's Priest's Exhibit 3," and state if he made the draught of that letter or did you write the original? I mean by the draught the substance of the letter, the composition of the letter?

A. Well, I wrote all but this here on this opposite side.

Witness here refers to the Notary's identification of the letter.

Plaintiff hands the Notary the letter of September 3rd, 1881, and asks him to mark it "Complainant's Priest's Exhibit 4."

X-Q 258. You and Mecke must have had considerable conversation before he wrote this letter for you?

A. Not very much.

X-Q. 259. Did you look at the copy of the first letter when you wrote the second?

A. No.

X-Q. 260. Did the draught in the letter which you wrote to Mr. Bridges show the spring attached to the spring bar by a staple at the fulcrum?

Objected to because it does not appear so far that witness has written a letter to Mr. Bridges and the letter, if any. is

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not produced and a proper foundation laid for the question.

A. I don't recollect.

X-Q. 261. Have you any recollection on it at all?

A. I have no recollection about how it was.

X-Q. 262. Do you recollect whether you wrote in answer to a letter from him or not?

A. I don't know whether I ever did or not of writing a letter to Mr. Bridges.

Plaintiff's counsel hands witness a letter and tells him to look at the signature and asks him to state whether that is his signature or not.

A. It's my signature, but I showed him a great many different sketches, the ways they had been made.

X-Q. 263. Look at the date of that letter and give me the date of it.

A. October 9th, 1881.

X-Q. 264. What was it written in answer to?

A. I don't know.

X-Q. 265. Look at the first of it and see if you can tell?

A. I can't tell anything by that.

X-Q. 266. What does the first of it say? Read the first of it to the Notary and let him take it down.

A. "Mr. Bridges: Yours of October 5th is at hand and I am sorry to say that our postmaster failed to give me your letter last week. Now, sir, as to the springs and couplings—"

X-Q. 267. Where is it dated?

A. October 9th. Grosse Pointe, October 9th, 1881.

X-Q. 268. Then this was in answer to a letter which Mr. Bridges wrote you?

A. It must have been.

X-Q. 269. Did you make these sketches in this letter?

A. Yes.

X-Q. 270. You came from Grosse Pointe here with Mr. Olin to testify, didn't you?

A. No.

X-Q. 271. What did you come for—for fun?

A. I came for the pleasure of the trip.

X-Q. 272. Have you had much pleasure out of it?

A. No. This business is spoiling all the fun.

X-Q. 273. Who pays your expenses?

A. Mr. Olin, I believe.

X-Q 274. Why didn't you apply for a patent on this new cross spring of yours?

A. At the time I didn't it would amount to any thing. I showed it to several carriage makers, and they said it was a clumsy thing.

X Q. 275. Why didn't you get a patent on the one you were making and experimenting with when Mr. Timken and I were at your shop?

A. I don't know. I didn't think any thing about it until after I was out in Wisconsin. Coming home I stopped a few days in Chicago, and I saw a buggy going into a livery stable, and I see it had cross springs on. I went into the stable and I saw a good many buggies there with cross springs on, and I was looking at them. The gentleman on the floor asked what I was looking at. I told him I was looking at the cross spring for it looked very much like one I had made. I asked him who made those buggies. He gave me a Timken circular. When I got home I wrote to Mr. Timken the substance in my first letter.

X-Q. 276. What do you mean by saying you wrote "the substance of your first letter?

A. I meant to ask Mr. Timken if he would give me any thing, as I believed I had priority in invention.

X-Q 277. Pontiff Guyn is dead, isn't he?

A. Yes sir. His wife is alive, and men is alive who worked for him.

X-Q. 278. Peter Venn is dead too, isn't he?

A. I don't know any Peter Venn.

X-Q. 279. What was Venn's first name then?

A. Thomas.

X Q 280. Thomas Venn is dead then, isn't he?

A. Yes.

X-Q. 281. Alonzo Rolf is dead, isn't he?

A. I never heard so.

X Q. 282. Where was he when you last heard from him?

A. In Chicago,

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X-Q. 288. Meisner's dead, isn't he?

A. I don't know.

X-Q. 284. Where was he when you last heard from him?

A. Detroit.

X-Q 285. Are they any other persons in Detroit or Grosse Pointe by the name of Priest except yourself and family?

A. Yes.

X.Q. 286. How many?

A. I don't know.

X-Q. 287. Any other Joram Priest?

A. Not as I know of.

X-Q. 288. Do you remember spending a whole day with Mr. Timken and myself in Detroit when we were there dictating a specification for your patent and also dictating the affidavit I have alluded to?

A. I recollect being there quite a long while. I don't recollect whether it was one day or two or three. There was a great deal said, but I don't recollect what was said now.

X-Q. 289. When did Meisner leave the Detroit?

A. I don't know.

X-Q. 290. Was it before 1881 or after?

A, I don't know.

X-Q. 291. Do you remember whether it was before 1875 or after?

A. I don't know.

RE-DIRECT-EXAMINATION.

Q. 293. Have you, as requested telegraphed to your home for books in which you said the accounts were kept which you said would show the dates when the Alonzo Rolf, Pontiff Guyn and Thomas Venn vehicles were made which had on springs similar to "Defendants' Exhibit. Priest's springs Nos. 1 and 2," and have you received such book or books?

Objected to as not growing out of cross-examination.

A. Yes.

Q. 294. When did you receive the book?

A. This morning.

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Q. 295. Is this the book which I now hand you in which those accounts were kept?

A. They are.

Objected to as before.

Counsel for respondent desires to state that before the cross-examination was closed, this book was tendered to complainant's counsel with the places marked therein which had the dates and names of the parties referred to by the witness in his examination in order that counsel might, if he desired to cross-examine the witness on the matters to which the witness had testified. Respondents' counsel now, in order to save the needless formality of re examining the witness first on the points brought out in cross-examination and then recalling him for direct examination, touching the matters which the book will disclose desires it understood that all questions put to the witness relating to the books and not responsive to the cross examination shall be considered as direct examination, and complainant's counsel, if he desires, may again cross-examine fully on such points, or if complainant's counsel desires it, respondents' counsel will first re-examine the witness in response to the cross-examination, let him sign his deposition and then recall him.

Complainant's counsel admits that the book was handed him just a few minutes before the close of his cross-examination, but says that he don't believe said book is in the hand writing of the witness and that he does not propose, and did not propose to cross-examine the witness upon anything except what was drawn out in direct examination and without intending to hinder or delay the defendants' counsel, plaintiff's counsel leaves him to pursue his own course.

Q. 296. You will please examine the entry on page 77 of this book which is as follows: "1875. Detroit, April 28. Cash pad for rent. $50.00 for laber on shop." State in whose handwriting it is, when it was made and to what it refers?

Objected to as not growing out of cross.examination.

A. It refers to rent and repairs I put on the building.

Q. 297. Question repeated. Answer the whole question.

A. It was made when I first took possession of the shop

on Jefferson avenue, the expenses of repairs and rent on shop on Jefferson avenue in Detroit.

Q. 298. In whose handwriting is that entry?

A. Mine.

Q. 299. When was it made?

A. It was made at that date.

Q. 300. After examining this entry are you able to state when you moved into the shop on Jefferson avenue in Detroit?

Same objection.

A I was in at that time.

Q. 301. Please examine the entries under date of July 3rd or 6th, whichever it may be, 1875 on page 96 of this book, charging T. Venn and A. Rolf with work done for them, being the second and fourth entries on the page. State in whose handwriting those entries are and what work was done for the parties to which these charges relate.

Same objection.

A. It is my hand writing. There was painting and changing and making springs and side bars on buggy. A. Rolf was for changing buggy over into side bar.

Q, 302. When were those entries made?

A. July 3rd, 1875.

Q. 303. What kind of springs did you use in making the change on the Venn side bar buggy?

Same objection.

A. I put cross springs on.

Q. 304. How did the cross springs you put on that buggy correspond with or differ from "Defendants' Exhibits. Priest's springs Nos. 1 and 2"?

Same objection.

A. They corresponded very much with No. 2,

Q. 305. Are you able now to state definitely when you put cross springs like Exhibit, Priest's springs No. 2, on the Venn buggy?

Same objection.

A. I put them on then before and afterwards.

Q. 306. When did you put them on, before July 3rd, 1875?

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Same objection.

A. On Randolph street. Oh, excuse me, not identically the same.

Q. 407. My question only referred to the Venn side bar buggy. Answer as to that.

A. That was the first exactly of that pattern.

Q. 308. When did you put them on?

A. I put the Venn springs—it must have been July 3rd when he got his buggy in 1875.

Same objection

Q. 309. What did you do to the Rolf buggy for which the following charge is made on the same page under date of July 3rd, 1875, "to altringe buggy over to a sid bar $20.00"?

Same objection.

A. I put cross springs on.

Q. 310. What kind of cross springs?

A. Something like No. 2, as near as I can recollect. I can't say. Cross springs.

Q. 311. When did you put those cross springs on Rolf's buggy?

Same objection.

A. In 1875, July 3rd, or under that date of July 3rd.

Adjourned.

Q. 312. After examining the last entry on page 96 in relation to the Rolf buggy, are you able to state positively when that buggy was made, or those cross springs put under it rather?

A. July 3rd, 1875.

Q. 313. Your attention is now called to the first entry on page 123 of this book under date of September 24, 1875, which is as follows: "Mr. Pontiff Guyon, Dr. To one sid spar 2 seated buggy $175.00." State in whose handwriting that entry is?

Objected to as not growing out of cross examination.

A. That's mine.

Q. 314. When was that entry made by you?

A. September 24th, 1875.

Q. 315. What kind of a buggy was it for which the

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charge was made and what kind of springs were put upon that buggy?

A. It was a piano-box body, a square box body. Cross springs similar to No. 2.

Q. 316. When was that buggy made and delivered to Pontiff Guyn?

A. I got the order for the buggy, I think, somewhere about the middle of July, 1875. I delivered it to him September 24th, or about that time.

Q. 317. When did you last see that buggy, and what became of it, if you know.

A. The last I saw of that buggy was in the possession of the Columbus Buggy Co., the time they were taking testimony with Mr. Timken's attorney, Mr. Eccles.

Same objection.

Q. 318. When was that as near as you can recollect?

A. Something like two years ago, or more.

Q. 319. State if you know where that buggy had been from the time you delivered it to Pontiff Guyn, September 24th, 1875 up to the time you last saw it.

Same objection.

A. It had been in the hands of Pontiff Guyn up to the time the Columbus Buggy Co. bought it.

Q. 320. When did the Columbus Co. buy it?

Same objection.

A. I think it was in 1881. I won't be sure but I think it was about that time.

Q. 321. State, if you know, what Mr. Pontiff Guyn did with that buggy from the time you delivered it to him until he sold it to the Columbus Buggy Co.?

Same objection.

A. He used it.

Q. 322. I notice that the last entry on page 122 of this book, which is also under date of September 24th, 1875, is substantially the same as the one on top of page 123 as follows: "24. Pontiff Guyn Dr. To one sid spar 2 seated buggy $175.00." Is that entry in your hand writing also?

A. Yes sir. It's the same charge.

Same objection.

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Q. 323. Your attention is now called to an entry on page 126 of this book under date of October 23rd, 1875 as follows: "A. Rolf Dr. To ironing two side bar buggys for tops, $180 00." In whose hand writing is that entry?

Same objection.

A. It's mine.

Q. 324. When was it made and for what was the charge made—for what kind of buggies was the charge made?

Same objection and also that the book is the best evidence and shows for itself.

A. They were piano buggies with cross springs.

Q. 325. What kind of cross springs?

Same objection.

A. I don't recollect exactly the style that they were, whether they were—. I think the fulcrum of the spring wasn't exactly in the center, was a little further back. I can't positively which pattern was on them

Q. 326. When you say the fulcrum was not in the center do you mean each pair of springs had a common fulcrum, or each spring had an independent fulcrum?

Same objection.

A. Each spring had an independent fulcrum similar to this (handing the Notary a sketch.) I think that was the way they were made.

The sketch handed the Notary by the witness is offered in evidence and Notary will mark the same "Defendants' Exhibit. Priest sketch."

Objected to as not growing out of cross-examination.

Q. 327. Will you please indicate by the letter A on that sketch the point in this sketch which you consider the fulcrums?

A. The letter A? (Witness draws lines and marks the same a a.)

Q. 328. Were the ends of these springs secured to the spring bar or body of the vehicle by bolts or shackles?

Same objection, and also as leading.

A. By bolts as I have marked it on the sketch.

Q. 329. How were the springs at the points marked a a connected to the body or spring bar?

Same objection.

A. The spring went in between these clips here and it was nothing only a clip bolt.

Q. 330. Indicate the part you have indicated on "Exhibit. Priest Sketch," by the letter B, to which you referred in your last answer.

(Witness does so.)

Q. 331. You say you are not certain whether the springs on the Rolf buggy were like "Exhibit. Priest's Springs No. 2," or like the sketch you have just made. Why are you not certain? Were you in the habit of making them both ways or not, at that time?

Same objection and also as leading.

A. I was.

Q. 332. Are you able now to state after an examination of this book the time when these two buggies were ordered and delivered to Mr. A. Rolf?

Same objection.

A. They were delivered October 23rd, 1875, or about that time.

Q. 333. Your attention is now called to the first entry on page 136 of this book under date of "January 6, 1876," and which is as follows: "A. Rolf, Dr. To altringe end spring buggy to a side bar or spar, $25.00." State in whose handwriting that entry is.

Same objection.

A. Myself.

Q. 334. When was that entry made and to what does it refer?

A. It was made January 6th, 1876. It refers to side bar buggy.

Q. 335. What change was made in that buggy? That is, what kind of springs were used in making the change?

Same objection.

A. Cross springs.

Q. 336. What kind of cross springs?

Same objection.

A. Well, I can't recollect whether they were like No. 2 or like those I gave a sketch of.

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Q. 337. When did you make that change?

A. About January 6th, 1876.

Q. 338. I refer you now to page 138 of this same book, and to the last entry on said page which is as follows. "A. Rolf, Dr. To 2 longe bolts for broken whills .75.
To changen buggy into sid bar 20.00
By cash $10.00"
Your attention is particularly directed to the last charge, "changen buggy into sid bar, 20.00." In whose handwriting is that entry and when was it made?

Same objection.

A. It is my handwriting and was made February 3rd, 1876. It was in 1876.

Q. 339. What was the work for which that charge was made?

Same objection.

A. I think that the work for which the charge "changen buggy into sid bar" was for I got up a bar and spring similar to this drawing. (Witness hands Notary a sketch which is offered in evidence and marked "Defendants' Exhibit. Priest's sketch No. 2.")

Q. 340. Please take up this book which I now hand you and refer to the following entries, stating to what each refers, and if any of them refer to cross springs for side bar buggies, state which ones they are and describe the springs. The entries are as follows: on page 139 the charge to Daniel Rerdon $15.00; on page 142, Mr. Shier $14.00; on page 148, charges to Rolf, $125.00; John Dicks $40.00; on page 155, Mr. ——, at Mors stable, $25.00. Give dates of each.

Same objection.

A. Daniel Reodon's is a cross spring buggy. As near as I can recollect, and I am pretty positive, the springs were something like No. 2 here. This was February 18th, 1876.

John Shier. This was a credit to Mr. Shier. A credit to a side bar and gearing stuff.

Rolf's was a cross spring buggy. I think those springs were similar to No. 2. April 17th, 1876.

John Dicks. I don't know what buggy that was. I be-

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lieve there was some trade about it between Rolf and Dicks and myself.

I never got that man's name. That was a cross spring buggy. He paid me twenty-five dollars down on the buggy, and I built the buggy and he skipped out with the buggy and I never saw him or the buggy since. That was a cross spring buggy similar to No. 2 of the exhibits here. Date, May 16th, 1876. It is under date of the 18th.

Q. 341. In whose handwriting are these several entries which you say refer to cross spring buggies, similar to "Priest's springs No. 2"?

Same objection.

A. Mine.

Q. 342. When were they respectively made?

A. Between 1875 and 1876.

Q. 343. Were the entries made at the time the work was ordered, or at the time the work was delivered to the parties named?

A. Generally when it was delivered.

Q. 344. Was it or not your custom to make entries in this book and to make the entries at the time you delivered the work?

Objected to as leading, as incompetent, and as not growing out of cross-examination.

A. That was what I generally done.

Q. 345. Are you able to state now that the several jobs referred to in your answer to question 340 which had cross springs similar to "Exhibit. Priest's Springs No. 2" were made by you and delivered to the parties at the respective dates they are charged in the book?

A. Yes.

Answer objected as not growing out of cross-examination.

Q. 346. Calling your attention to page 168 and succeeding pages of this book, I find the pages are headed "Grosse Pointe." Are you now able to state the time you left Jefferson Avenue, Detroit, and returned to Grosse Pointe?

Same objection.

A. I went back to Grosse Pointe from Jefferson Avenue

in 1876 about 18th or somewheres thereabout or close around there.

Q. 347. In referring to the Meisner spring you have said you made it from a Concord spring by cutting it in two. Please look at the cut I now show you and state whether that correctly represents a concord spring.

Objected to as not growing out of cross-examination, and as having been fully gone into in the testimony. In chief and further because the witness did not say he cut the Concord spring in two.

A. The spring represents a Concord spring, a side spring, the same as I cut in two to make the springs for the Meisner buggy.

The cut is offered in evidence and Notary will mark the same "Defendants' Exhibit. Cut of Concord Spring."

Q. 348. There are two springs represented on this cut, 18 being a double sweep and 19 a single sweep. Look at the cut again and state which one of these illustrations, 18 or 19 represents the kind of Concord spring you used to make the springs for the Meisner buggy.

Same objection as last above stated.

A. 18, double sweep.

Q. 349. You will hear the Notary read to you cross-question 67 and your answer to the same. Please state clearly what you mean when you say "no" to that question.

A. I mean to say that there is no spring action from the fulcrum back to the spring end on the spring bar.

Q. 350. You have been asked in cross-examination about a certain sworn statement you are said to have given Mr. Timken or Mr. Eccles at the time Mr. Timken gave you the four hundred dollars, and you are asked particularly about the draughts or sketches in said sworn statement. Did you sign such a statement, and if you did who drew it up and who made the sketches inquired about?

A. Mr. Eccles drew them up.

Q. 351. You are asked if you did not in that statement swear that you never made springs prior to 1877 for side bar vehicles that did not have spring action between the two points of contact with the spring bar. Did you sign and

swear to such a statement, and if so, did you carefully read and understand the statement at the time you swore to it?

A. I told Mr. Timken and Mr. Eccles at the time, I believe, and tried to explain to them the different ways I had made those springs. I believe they understood, and when I signed I didn't take particular notice as regards the exact dates.

Q. 352. You say in answer to cross-question 87 that you didn't recollect that you signed any application for a patent, but supposed that what you signed was a bill of sale for what rights you had in the spring. When did you first learn that a patent had been granted upon your application for a cross spring for side bar buggies?

A. The first I see of it that I knowed anything about it I saw in the paper and also in the monthly Carriage Makers' Journal.

Q. 353. How many papers did you sign at the time you received the four hundred dollars from Mr. Timken? How many times did you sign your name to papers at that time?

A. I couldn't say. I signed several papers.

Q. 354. What were the several papers you signed?

A. One was for the right to the spring and something about the style of the spring. I don't know now what all of the papers consisted of.

Q. 353. Did you know then what they consisted of?

A. No. I would not say that I know what they consisted of, but I supposed they were for the sale of the spring and describing it.

Q. 354. Will you please give in one answer a connected statement of just what took place upon the occasion referred to when you received the four hundred dollars from Timken? I want to get the whole history of that transaction as fully as you can give it.

A. Well, Mr. Timken come to me and I believe Mr. Eccles was with him. I showed him a buggy I had there and showed him different ways I had made the spring. They invited me down to the Kirkwood House at Detroit, and talked a good deal about the spring and wanted to know what I wanted from Mr. Timken for my interest in the spring. I

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told them as I had no patent and Mr. Timken had that I couldn't put no price on it, that they could give me what they thought best or something to that effect. Mr. Timken made reply that he didn't think he was under any obligation to give me anything or something like that, that he didn't know that he should ever use it and that he would give me a couple of hundred dollars or something like that amount. I believe we agreed on four hundred dollars. He told me that he had bought the Tilton patent and calculated to control the cross spring. They then made out the papers and I signed them.

Q. 355. How long were these negotiations pending?

A. I think two or three days.

Q. 356. What time of the day did you sign the papers and where did you sign them?

A. It was in the evening. on Griswold Street. I don't know the number.

Q. 357. What time in the evening?

A. The fore part of the evening. I don't know what time it was.

Q. 358. You say you told Mr. Timken you believed you had priority of invention on these cross springs over the springs he had patented. What did Mr. Timken say in reply to that?

Objected to because it does not state properly what the witness has said. He stated that he wrote that to Mr. Timken.

A. I told him so and he said, "that may be," or something like that, and then he said, "I have the Tilton patent, which is far ahead of yours."

Q. 359. Do you know or have you ever heard that either Mr. Bridges or Mr. Timken ever made any springs like the ones shown in the patent "Defendants' Exhibit. Priest's Patent"?

Objected to as not growing out of cross-examination, irrelevant and hearsay.

A. No. I don't know of any.

Q. 360. Please state fully what induced you to go to Canada, at the time they were taking the testimony in De-

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troit in the case of Timken against the Columbus Buggy Co, and state if you were induced or advised to do so by any body.

A. The reason that I went to Canada was that I had already told parties interested in the Columbus Buggy Co., the parties came to me, the same men, and pretended they wanted to buy a buggy or get one made something like what I had made and then they wanted to get an old buggy if they could find one to see what it would look like. They asked me if I knew where there was any. I told them I thought there were some in Detroit. They said they would come again and see me. Soon after that I was going to Detroit and I saw Mr. Firestone, Mr. Richle. I met them on the road. Mr. Firestone stopped, and Mr. Richle. He said that Mr. Richle told him that I had built a buggy for some Frenchman in Grosse Pointe. He said he would give me fifty dollars if I would go back and show him the buggy. He gave me the fifty dollars. I went back and showed him the buggy. He bought the buggy. I left him and went to town. I think Mr. Firestone and Mr. Peters came to Grosse Pointe and begun to talk about the date of that buggy. There seemed to be a dispute about the time it was made as I understood them arguing the question. I gave them the date as near as I could. They talked a good deal about buggies and they asked me a good many questions about the different styles of buggies I had made. They wanted to know if I would make them a gearing as near like the Meisner gear, and if I would do so they would send me twenty dollars. I made the gear, springs and bars, and shipped them as they directed. I believe that Mr. Firestone was up to my place afterwards and wanted to get more accurate dates, and I believe my son, Charley Priest, gave him the dates they were looking for, or as near as he could. Soon after that I was in town and I went to a carriage shop and they told me there that the Columbus Buggy Co. was agoing to bust the Timken patent spring. I went to my attorney, Mr. Duffield, and I related how I was connected with the spring, that I had the right to manufacture some four hundred sets per year, and if the Timken patent was busted it wouldn't do me any good. He asked me what I thought it was worth. I don't recollect what price I put on it. He advised me to sell

it to the Columbus folks. I told him that I understood the marshal was looking for me to subpoena me to give evidence. He told me then I had better go to Canada, and I might notify the parties who they might consult with. I would say that the representatives of the Columbus Buggy Co. came in an underhand way to get the information they got.

Q. 361. Why do you say they came in an underhanded way to get the information? Did they not tell you for what purpose they intended to use it?

Objected to as not growing out of cross-examination.

A. No sir. They didn't tell me.

Q. 362. Do you mean to say that you didn't know at the time they were inquiring about the buggies you had made and getting the information that you gave them, that the information was to be used in a suit either threatened or pending?

Same objection as last stated and also because leading.

A. I didn't know anything about any suits.

Q. 363. When did you first hear that there was a suit brought on the Timken patent? Was it before or after you had given Mr. Firestone, Mr. Peters. and the man who first called to see you the information as to the cross springs similar to the Priest Exhibits?

A. It was afterwards.

Q. 364. You stated in answer to a question on cross-examination that Pontiff Guyn is dead. When did he die?

A. I didn't know that he is dead. He was alive when I left home.

Q. 365. The Notary will read to you cross-question and answer 277. Please state how you reconcile this with your last answer?

A. Oh, that is Tom Venn.

Q. 366. Why didn't you show Mr. Firestone the Pontiff Guyn buggy when he called on you first and wanted to see some buggies that you had made?

Objected to as not growing out of cross-examination.

A. I didn't recollect about Pontiff Guyn's buggy.

RE-CROSS-EXAMINATION

X-Q. 367. Will you take a pen and piece of paper and

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write for me "1875. Detroit, April 28th, cash paid for rent and labor on shop"?

Objected to for the reason that complainant's counsel has introduced letters of the witness in evidence which can be compared with the entries in this book and the book can be produced at the hearing if desired.

X-Q. 368. All the dates in this book on pages 97, 122 and 123, 126 and 127, 138 and 139, 142 and 143, 148 and 149, 154 and 155, appear at the top of the pages and nowhere else so far as the year is concerned, do they?

A. I believe it is all correct so far as I know.

X-Q. 369. I didn't ask you if it was all correct. I asked you whether all the dates so far as the years are concerned in the pages named, didn't appear at the top of the pages and nowhere else?

A. I say that is all correct. They appear at the top of the pages.

X-Q. 370. Look on page 142 and tell me whether you wrote 1876 at the top of that page?

A. Yes sir,

X-Q. 371. How did you come to write it 1875 first?

A. I suppose because I wasn't taking notice what I was doing particularly.

X-Q. 372. In making entries in your books are you in the habit of making a mistake of a whole year?

A. No sir.

X-Q. 373. Did you make these entries right along in this book from page to page as you did the work?

A. I did.

X-Q. 374. Will you look on page 138 and tell me whether you wrote 1875 at the top of that page?

A. Yes sir.

X-Q. 375. Why did you write that 1875?

A. I wrote it in mistake.

X-Q. 376. What is the date of year at the top of page 136 preceding that?

A. I think that is January 6th, 1876.

X-Q. 377. Then the work done on page 138 was not done in 1875 as there stated?

A. That should have been 1876.

X-Q. 378. When was that 1875 written, after the entries were made on the page or before?

A. Before.

X-Q. 379. When was that 1876 written on page 136, after the entries on the page were made, or before?

A. Before. I generally start the date first of all.

X-Q. 380. Was the January written before the entries were made or after?

A. Before.

X-Q. 381. Turn to page 126 and tell me whether October 23rd, 1875 were written before the entries were made or after?

A. Before.

X-Q. 382. Was the date at the top of page 127 written before the entries were made or after?

A. Before.

X-Q. 383. Was the date September 23rd, 1875, at the top of page 122 written before the entries were made on that page or after?

A. Before.

X-Q. 384. Was the date at top of page 123, namely September 24th, 1875, written before or after the entries were made on that page?

A. Made before.

X-Q. 385. Was the date July 3rd, 1875 at top of page 97 written before or after the entries were made on that page?

A. Before.

X-Q. 384. Was the date July 6th, 1875 at top of page 96 written before or after the entries were made on that page?

A. That should have been July 3rd.

X Q. 385. Was the entry July 3rd 1875 at the top of page 96 written before or after the entries were made on that page?

A. Before.

X-Q. 386. I refer you again to page 138 and ask you if the word "December" was written before or after the entries were made on that page?

A. The word was made but it should have been January instead of December. January 1876 instead of 1875.

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X-Q. 387. Was the 28 written at the same time the December was?

A. Yes sir.

X-Q. 388. How long after the date January 18th 1776 was written was it that the date December 28th, 1875 was written?

A. I don't know how long it was before. It was calculated to follow right up the dates. I got it wrong in there.

X-Q. 389. Did you get it wrong on page 137?

A. I think that was correct.

X-Q. 390. You think it is correct on page 137, which is correct, 1776 or 1876?

A. That is 1876, January 18th. That is correct.

X-Q. 391. Is that a seven under the 8, or is it a 4?

A. It is a 8, or it was calculated to be.

X-Q. 392. Look on page 142 and tell me how you came to write it 1875 the first time?

A. I don't know, but when I saw I had the date wrong I changed it.

X.Q. 393. Did you make these mistakes in the years because you are in the habit of making mistakes in the years?

A. No sir.

X-Q. 394. Will you look at the top of page 169 and tell me what the date was there originally?

A. That was calculated for 1876.

X-Q. 395. What was it originally written?

A. I don't know.

X-Q. 396. Can't you see a five under that six?

A. I can't see.

X-Q. 397. Will you swear that a 5 has not been changed to a 6 in the date 1876?

A. I couldn't swear to it.

X-Q. 398. What is your best impression about it?

A. I don't know. I can't tell what it might have been.

X-Q. 399. Did you write that date at the top of page 169?

A. Yes sir.

X-Q. 400. And you made that 6 in 1876?

A. Yes sir.

X-Q. 401. And you will swear that there wasn't a 5 there when you made the 6?

Objected to as already answered and wholly immaterial.

A. No sir.

X Q. 402. Will you turn to page 192 and tell me what the number of the page is following 192?

A. I can't.

X-Q. 403. Why can't you?

A. This book was thrown away as no more use.

X-Q. 404. How many pages were cut out there?

A. I don't know.

X-Q. 405. Who cut them out?

Objected to as these pages were not inquired about and are new matter, and the date at the top of page 192 was subsequent to the date of the Timken patent, and subsequent to many dates the witness has already to when he made springs like the Priest exhibits.

X-Q. 406. Look at page 24 and tell me who cut that leaf out.

A. I don't know.

X-Q. 407. Look at page 30 and tell me whether you made the entries on page 30.

A. No sir. That belonged to the wood-working and bending department. This was an old book that we used in the business at that time.

X-Q. 408. Then you were in the bending business in 1870?

A. I had an interest in the business.

X-Q. 409. Look at page 3 and tell me if that is in your handwriting.

A. Yes sir. The lower part of it was.

X-Q. 410. What is that?

A. That was on account with Charles Moran.

X-Q. 411. Well, do you see 1876 down there?

A. Yes.

X-Q. 412. Is that a correct date?

A. Yes sir.

X-Q. 413. Well, there wasn't much of this book used in the old bending business, was it?

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A. No sir.

X-Q. 414. And you didn't use the book according to the dates set down? You set them down most anywhere didn't you? That is you didn't go right through the book from the beginning?

Objected to as the issue in this case does not depend upon the witness' qualifications as an expert in the science of book-keeping.

A. This book was abandoned after I left aRndolph street. I went up to the Pointe and used it there, and used it in the vacant pages there was in the book. This is not my Detroit Randolph street book. I have another book that was kept by book keepers.

X-Q. 415. Then you put entries in this book just wherever you happened to find vacant pages?

A. While I was at Grosse Pointe.

X-Q. 416. Look on page 18 and see what is the date of that page?

A. That is 1876.

X-Q. 417. What is the date of the first entry?

A. February 5th.

X-Q. 418. Is that in your handwriting?

A. Yes sir.

X-Q. 419. Well, you weren't in Grosse Pointe when you made those entries, were you?

A. No sir.

X-Q. 420. Then you used vacant leaves in the front part of the book before you went to Grosse Pointe the last time?

A. Well, I used this here to get his account together.

X-Q. 521. Then you mean to say that that entry was not made at the time of the dates there?

A. I mean to say that I made that entry after I commenced work for him, to settle up with him. He wanted to know how much he owed me and I made that to settle up with him.

X-Q. 422. Who tore that leaf out just after page 18?

A. I don't know. I would cut out a leaf when I wanted a leaf out of it.

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X-Q. 423. Did you always put down the date of the year at the head of your accounts?

A. I don't know as I always did.

X-Q. 424. Did you cut out the leaves after page 44?

A. I don't know as I did.

X-Q. 425. Did you make that entry at the top of the piece of the leaf left in No. 45?

A. No sir.

X-Q. 426. Who did?

A. I believe Mr. Workman did. He kept the books at that time. That belonged to the bending arrangement.

X-Q. 427. How did it come that you did not put Detroit at the top of the page from April 1875 to August 1876?

A I don't know, but I tried to start this after I went into the city on the avenue, to keep this as straight as I knowed how.

X-Q. 428. During the time you were in Detroit on Jefferson Avenue, you paid fifty dollars a month rent, didn't you?

A. Yes sir.

X-Q. 429. How did you happen to only make one entry of that?

A. Well, I had a little cash book to keep those matters in and what little cash I received that I didn't make no entry in the book.

X-Q. 430. You did make one entry?

A. Yes. I rented from Mr. Campbell and I was doing work for him and I generally took his bill down and got the balance in money, and his receipt and enter it in the cash book.

Adjourned.

X-Q. 431. Look at page 81 of the book and tell me if you wrote the date at the top of page 81.

A. Yes sir.

X-Q. 432. What was that originally written?

A. I think it was written 1884 or 1874.

X Q. 433. Turn to September 24th, 1875, page 123. Is there anything in the entry of Pontiff Guyn that shows when that order was given?

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A. Not that I see. He got his buggy about that time.

X-Q. 434. Did you say that "Defendants' Exhibit, Priest's Sketch No. 2" was put on the More buggy in 1876, or what buggy was it on?

A. On one of the Rolf buggies.

X-Q. 435. How do you know it was like this exhibit?

A. Because I made it.

X-Q. 436. Was that the first one you had ever put on of that kind?

A. Yes sir.

X-Q. 437. How does it come you have never said anything about this kind of a spring in all your examinations and conversations before?

A. I was never asked anything about anything but a cross spring.

X-Q. 438. Then this isn't a cross spring, is it?

A. No sir.

X-Q. 439. Will you please indicate on that exhibit by the letter A what the side bar is?

(Witness does so.)

X-Q. 440. The springs in that exhibit attach to the head block and the back axle cap, didn't they?

A. They attached to half elliptic springs on rhe head block and back axle cap.

X-Q. 441. Will you look at these two sketches and tell me if they are not the same kind of sketches that were made in the affidavit, made in Detroit about the 20th day of December, 1881?

A. I think they are. Sketch No. 1, the fulcrum is carried a little more into the center than it should have been.

X-Q. 442. Did you say in that affidavit that you made two of these, one in July, 1874 and the other in July, 1875, and that "then I quit business and have made none since," and that "these as shown by the two annexed drawings and which I have signed and marked respectively exhibits 1 and 2, correctly represent the only two ways in which I ever made the cross-bar springs," or words to that effect?

Objected to, 1st, because the affidavit or statement, if in existence is the best evidence, and its loss has not been ac-

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counted for, nor has it been produced, and 2nd, the witness has already testified that he did not read the statement carefully and does not remember what it did contain.

A. I did explain to Mr. Timken the different ways that I had made those springs. I told him I had made springs on Randolph street and that I had moved to Grosse Pointe. That when I commenced to make those springs again was when I moved to Grosse Pointe to Detroit. In 1875 I commenced to make cross swrings again, and that when I left there I didn't make any more in 1876. If I did state that I made them in 1874 it was a mistake. as I knowed better. He asked me how many I had made about of those drawings I told him I thought I had made two or more of each, I couldn't say, something to that effect. I supposed he understood the different ways I tried to explain I had made them as I had made them in different ways.

X Q. 443. Did you or not state in that affidavit that "these as shown by the annexed drawings, which I have signed and marked respectively exhibits 1 and 2 correctly represent the only two ways in which I ever made the cross-bar springs"?

Objected to for the reasons above stated, and further because it does not appear that the witness wrote the affidavit, made the sketches or had the affidavit carefully explained to him.

A. I don't recollect. If I did I certainly knowed better at the time, for I had already told them the different ways in which I had made the spring.

X-Q. 444. Did you say in that affidavit "at each end of the spring there was but one leaf, but there were more leaves as you approached the fulcrum or place where the spring pressed on the cross bar, so that the heaviest part of the spring was at the fulcrum, and the lightest portion was where the ends were. In no case did the leaves all run to the end of the spring, but were cut off or dropped as you approached the ends, until when they were reached both next to the side bar and where they were fastened to the sill was there ever more than one leaf, and I never built it in any other way," or words to that effect?

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Same objection.

A. Yes sir.

Complainant offers the sketch last handed the witness in evidence and asks the Notary to mark it "Complainant's Priest's Exhibit 5.

X Q. 445. Was you sworn when you testified in the case of Henry Timken against the Columbus Buggy Co. in Detroit?

A. I believe I was.

X-Q. 446. Sworn to tell the truth, the whole truth and nothing but the truth?

A. Yes sir.

X-Q. 447. How old are you now ?

A. I was born in 1821.

X-Q. 448. How old does that make you now ?

A. I don't know but that I'll have to figure on it as I haven't kept track of it. About 66.

X.Q. 449. Did you swear you were 63 in your testimony in Detroit?

A. I don't know.

X Q. 450. Were you asked the question, "then as I understand your testimony the Priest Exhibit No 2, when sold to Mr. Guyn was a complete vehicle ready for use? Is it correct?" and did you answer, "well, it was so as he could use it. I never considered it a perfect job."?

Objected to as the record is the best evidence.

A. Yes sir.

X-Q. 451. Did you in answer to a question, "which side of the street was your shop on, on Jefferson avenue," answer that you didn't know, in that deposition ?

Same objection.

A. They asked me at that time for the points of the compass, and I told them I didn't know, but that the shop was on right hand side parallel to the river going up, next to Rolf.

X-Q. 452. Did you while giving that deposition when asked what became of the Meisner spring as shown by exhibit No. 1, after you made them, answer, "I don't know. I left the shop about that time."?

Same objection.

A. That is right.

X-Q. 453. Was that true or false?

A. True as far as I recollect.

X-Q. 454. Did you say, "well, I couldn't say who got them." meaning the Meisner spring?

A. I don't know what became of them. I don't know who got them.

X-Q. 455. Did you state "I started to make the gear" meaning the Meisner Spring, "for a party, and when it was done they wouldn't take it, and so it was thrown away"?

Same objection.

A. It was Meisner. That was the gear I made.

X-Q. 456. Did you say he wouldn't take it and it was thrown away?

A. Yes sir.

X-Q. 457. Did you say in answer to the question, "why did the party refuse to take said gear," that he didn't like the springs?

A. Yes sir.

X-Q. 458. Did you say in answer to the question, "when the gear was rejected by your customer, how far had you advanced in the construction of the buggy," that "I proposed to make the gear. He had the body of the buggy, a side bar buggy, to make a change for him, and after I had got it done he asked me to change it back to the old gear again. He did not like the springs. "They rocked too much," or words to that effect?

Objected to for the reason above stated and further that the deposition referred to has been removed from the files of the Court and respondents' counsel has no copy, and has no means of knowing whether the portions called to the witness' attention are quotations from those depositions or not.

A. Yes sir.

X-Q. 459. Did you in answer to a question "how many did you make like or similar to said exhibit while in the shop on Randolph Street," say "well, I made the one, that's all. I experimented on the one." I refer to what you said in your deposition at Detroit?

Same objection.

A. Correct.

X-Q. 460. In said deposition in answer to the question, "where was your shop located when you next made a gear like or similar to Priest's Exhibit No. 1, if at all," did you answer "I didn't make any more"?

Same objection.

A. It was in Detroit. I didn't make any more like Mr. Meisner's. Correct.

X-Q. 461. Did you state in said deposition in answer to the question, "In what condition was it (meaning the Pontiff Guyn buggy) in relation to these parts when you sold it to Mr. Guyn," that "it was, when I sold it to him it had elliptic springs on "?

Objected to for the reason above stated, and also because it is indefinite, it not appearing to what "parts" refers.

A. That was what we talked of in the first place. Then I took the elliptic springs off. After he saw the cross spring buggies that I was making, he wanted me to make a change into a cross spring. I didn't consider the buggy a perfect buggy on the account that the axles were arched too high.

X-Q. 462. I didn't ask you that. I asked you if you said in that deposition in answer to the question above stated that "when I sold it to him it had elliptic springs on"?

Same objection.

A. That was the first talk about the buggy.

X-Q. 463. Did you or not state in that deposition "when I sold it to him, it had elliptic springs on," meaning the Pontiff Guyn buggy.

Objected to as above and further it appears from the witness' deposition that the buggy was made to order for Mr. Guyn.

A. That's what it was. That's what he bargained for first.

X-Q. 464. I didn't ask you what he bargained for. I asked you if you stated in that deposition in Detroit that "when I sold it to him, (meaning Pontiff Guyn) it had elliptic springs on." Did you state these words in that deposition or not? Please answer yes or no

Same objection and all reference to this deposition is objected to for the reason stated.

A. Yes.

X-Q. 465. Did you in that deposition state in answer to the question "Did you or not make a doze," (meaning a dozen of springs like exhibit 2 and meaning make them for one Rolf) "I think not?"

Same objection.

A. That is correct.

X-Q. 466. Did you state in that deposition in answer to the question, "To whom did you sell the first cross spring buggy you made on Jefferson Avenue," answer "I don't know"?

Same objection.

A. I didn't know the man who got the buggy, but I made it for Rolf.

X-Q. 467. I didn't ask you that. I asked you if you said "I don't know"?

A. Yes. I didn't know who got the buggy.

X-Q. 468. Did you in that deposition in answer to the question, "In your sworn statement did you not state referring to the cross spring that they were all the same except the fulcrum was moved a little closer to the center, and so I continued until I got the fulcrum in the center of the body," answer as follows, "Well, I think that isn't correct. That they would be the same with the exception that the short end of one style of spring was bolted and the other is shackled"?

Same objection.

A. Correct.

X Q. 469. Did you in that question in answer to the question describe the other bolt or connection and how far was it from the other bolt. Did you answer "I should judge the other bolt was a T headed bolt or T clasp and the bolt or clasp was some ten or twelve inches." (meaning ten or twelve inches from the bolt at the end of the spring.)

Same objection.

A. Yes sir.

X-Q. 470. Did you promise Mr. Firestone to come and testify for him?

A. Yes sir.

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X-Q. 471. Did you answer in said deposition question "Mr. Priest, isn't Priest's sketch made by you, marked No. 3, drawn by you to represent Priest's exhibit No. 1, and the vehicle which you say you made like Priest's exhibit No. 1," and didn't you answer said question "yes," and isn't this sketch which I hand you marked Priest's sketch No. 3 a correct copy of the sketch referred to?

Objected to as above, and further because the original is the best evidence and it does not appear from the question what vehicle is referred to.

A. Yes.

Sketch is offered in evidence to be marked "Complainant's Priest's Exhibit No. 6."

X-Q 472. That Priest's exhibit No. 1 in the Detroit deposition was made to represent the Meisner buggy, wasn't it?

Same objection.

A. Yes sir.

X Q. 473 Did you make any changes in this Guyn buggy after Guyn had used it, and while it was his property? If so, what changes did you make and didn't you change the springs after you put them on the first time by adding new leaves to them?

A. I changed buggy from an elliptic spring buggy into a cross spring buggy. After he had used the buggy some time the springs were found to be too light. I put more plates or leaves into the springs and then some time after that I put in a T headed bolted instead of a joint bolt. I done some other wood working repairs, and on tires and believe I put in one or two new shafts.

X-Q. 474. Did you set the springs up higher than they were at first?

A. Yes sir.

Adjourned.

X-Q. 475. Were the answers to those questions in your deposition in Detroit and which I have called your attention to true or false?

A. True.

X-Q. 476. Do you believe in future reward and punishment after death?

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A. Yes sir.

RE-DIRECT-EXAMINATION.

Q. 477. You say in cross-examination in answer to a question which was said to have been given in your Detroit deposition that the Pontiff Guyn buggy was not a perfect job. In what was it defective? What was the objection to it?

A. The first objection was the axle beds were arched too high, and I couldn't get it down low enough to make it look good. The body sills were concaved, which didn't give me much room in my spring attachments. In the first place they were in elliptic springs and I had to make the change.

Q. 478. What defect if any was there in the cross springs used in that buggy?

A. They were too weak in the first place.

Q. 479. Was that all the defect?

A. That is all I know of.

Q. 480. How was that defect remedied, if at all?

A. By adding more plates to the springs.

Q. 481. You say in cross-examination that when you sold the buggy to Pontiff Guyn it had elliptic springs which were afterwards changed to cross springs. When was that change made? In this connection please state what kind of springs, whether elliptic or cross springs that buggy had on it when it was delivered to Pontiff Guyn on September 24th, 1875.

Objected to as having been fully gone into before.

A. Cross springs. The change was made after he had seen the cross springs. It was delivered to him, I don't know the date now that he did get it. It was September 24th, 1875.

(Witness makes the last statement after referring to the account book.)

Q. 482. You say he made the change after he had seen the cross springs. Which cross springs do you refer to?

Objected to as not growing out of cross-examination.

A. Cross springs similar to those I had been making.

Q. 483. You have been asked so much in cross-examination about this Pontiff Guyn buggy and the changes made in it. Will you now in one answer state fully all that took place

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between yourself and Mr. Guyn in relation to it, in order that the whole history of that buggy may be condensed.

Objected to because this has been fully gone into direct examination.

A. Mr. Pontiff Guyn spoke to me quite a long time before I made the buggy, about getting a buggy. We agreed on the price of a square box buggy, two seated, elliptic springs. When I had the buggy pretty near finished he called in the shop to see his buggy, and he saw cross spring buggies and wanted to know if I couldn't change his buggy like this buggy which was in the shop. I told him I could but it would cost him more. We agreed on the price, one hundred and seventy five dollars. I made the buggy and made the changes and delivered the same.

Q. 484 What was the objection to the Meisner spring? What made the body "rock" as you have said?

Objected to as not growing out of cross-examination.

A. I believe it was the loose shackles.

Q. 485. If the shackles shown in "Defendants' Exhibit, Kierolf springs," were substituted for the loose shackles or links in the Meisner buggy shown in "Defendants' Exhibit, Priest's springs No. 1," what effect would that have upon the riding qualities of a buggy?

Objected to because not growing out of cross-examination, and because witness is not an expert.

A. It would do away with the noise and rattle and swinging around.

Q. 486. If the "Priest's springs No. 1" were connected to the side bars of a buggy by shackles similar to those in "Defendants' Exhibit, Kierolf springs," would the "Priest spring No 1" thus connected to the side bars of a buggy operate substantially like, or substantially different from the Timken spring as used?

Objected to as not growing out of cross-examination and as leading, and further that the witness is not an expert.

A. I think they would operate somewhat different.

Q. 487. Describe the difference.

Same objection.

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A. The difference I think would be in the expansion and contraction of the spring.

Q. 488. Did you understand me to ask whether the loose links now shown in the Priest spring were removed and the shackles shown in the Kierolf spring were used in the place of them?

Same objecteon.

A. Yes sir. There would be a little difference in the action of the spring, but probably not very perceivable.

Q. 489. By what name would you call the shackle attached to the Kierolf spring?

Same objection.

A. I call that the Brewster shackle. I don't know what others call it.

Q. 490. Please state whether or not you were familiar with that shackle at the time you attached the Priest spring No. 1 to the Meisner buggy.

Objected to as not growing out of cross examination.

A. No sir.

Q. 491. In your opinion as a mechanic and practical carriage maker would that Brewster shackle, as you term it, if substituted for the loose links in "Priest's springs No. 1" have overcome the objections to the Meisner buggy?

Objected to because it does not grow out of cross-examination, and 2nd because leading and also because it calls for an opinion.

A. Yes.

Q. 492. Calling your attention to the Priest sketch No. 3 on "Complainant's Priest's exhibit No. 6," please state upon what vehicle springs similar to that were used by you.

Same objection.

A. I don't recollect now who got one of them. I have an idea though that Rolf must have got one of them. I believe I made two of them.

RE-CROSS EXAMINATION.

X-Q. 493. Mr. Priest, when you were asked the question whether Pontiff Guyn's buggy had elliptic springs on it or cross springs on it when it was delivered to Pontiff Guyn on

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September 24th, 1875, and you answered "I don't know the date now that he did get it." You said that because you didn't remember the date at that time, didn't you?

A. Not just then until I had looked at the book to refresh my memory.

X-Q. 494. Then your memory was so poor that you couldn't remember that date though it had been spoken of by you often in this examination, and could not recall it until you looked at the book?

A. I probably could if I had taken time enough and reflected.

X-Q. 495. But you did have to look at the book before you could answer?

A. I did look at the book.

X-Q. 496. You had to look at the book before you could answer the date?

A. Yes. Have it so if you want it.

X-Q. 497. Didn't you tell me that the Meisner buggy that you put these springs on had a Brewster spring on it?

A. No sir.

X-Q. 498. What kind of a reach did it have on it? An ordinary old-fashioned reach?

A. It had a common reach.

X-Q. 499. And you think "Priest's springs No. 1," if attached to side bars that are rigid, which are attached to the hind axle and the front bolster with a tight shackle like the Brewster would operate as well as Timken's, and that the difference wouldn't be perceptible?

A. I think it would, because if the bars were attached to a cross spring it wouldn't be perceptible hardly. No, if they were attached to a bolster there wouldn't be no chance to contract because there would be no curve in like there is in the Timken.

X-Q. 500. What do you mean in the last answer by "they" in "if they were attached to a bolster"? Do you mean the side bars?

A. I mean the springs attached to the side bars. I mean the side bars.

X-Q. 501. You meant then when you said if they were

attached to side bars by the Brewster shackle instead of a link that there would be no perceptible difference between the action of these springs and Timken's, that the side bars should be attached to cross springs, which cross spring should rest upon the bolster and hind axle so as to take up the expansion and contraction of the Priest spring No. 1?"

A. That's right.

X-Q. 502. When you made this sketch No. 3, "Complainant's Priest's exhibit No. 6." you made it to represent Priest's exhibit No. 1 in your deposition in Detroit, didn't you, which you then had before you?

A. I think there is some difference between this and No. 1. I am inclined to think the leaves were drawn a little at each end except the bottom leaf which ran up to the spring bar.

X-Q. 503. Will you state whether that sketch was made at the time to represent exhibit 1, which you had before you or not?

A. I couldn't say. I don't know.

X Q. 504. Well, will you swear that you didn't, or that you don't remember?

A. I don't remember.

X-Q. 505. Did you in your examination at Detroit in answer to the question "Mr. Priest, isn't Priest's sketch made by you marked No. 3. drawn by you to represent Priest's exhibit No. 1 and the vehicle which you say you made like Priest's exhibit No. 1," and didn't you then answer "yes"?

Objected to as the record is the best evidence, and for the further reason that the witness has already stated that he does not remember, and also because the witness' deposition has not been submitted to him, nor it is of record in the Court. The questions relating to this deposition are all objected to as unfair, because respondents have had no opportunity of examining, an effort having been made to trace those depositions, and from the best information he could obtain, counsel for defendants believes they are in the possession of Mr. Timken.

A. I don't know. I made the sketches but don't know whether it was to represent No. 1 or No. 2. I don't recollect.

Joram Priest

I think that that sketch the springs were coupled to the spring bar by a clip bolt.

X-Q. 506. I didn't ask what you made the sketches for. I asked whether in answer to a question in that deposition just repeated to you in the former question your answer wasn't "yes"?

A. I wish you would read that question again. I don't understand it.

Notary re-reads the question X506 and also X505.

A. I might, but I don't recollect. I made the sketches, but I don't know if in reference to No. 1 or not.

X-Q. 507. Didn't you state in your deposition at Detroit in answer to the question "what do you mean by the link? and please point the same out on Priest,s exhibit No. 1, and state whether the link is referred to in sketch No. 3." Did you then in answer to that question point to Priest's exhibit and say "I mean the link coupling the spring to the shackle of the bar. Yes sir, as near as I can recollect between the springs and the bar," or words to that effect?

Same objection.

A. I know the link connecting the spring to the bar was a link in No. 1.

X-Q. 508. I didn't ask you whether the link in No. 1 was there or not. I ask whether in answer to the question "what do you mean by the link, and please point out the same in Priest's exhibit No. 1 and state whether the link is referred to in sketch No. 3," and didn't you answer as follows, and point to the Priest exhibit No. 1 before you and say, "I mean the link coupling the spring to the shackle of the bar. Did you state that or not?

Same objection.

A. I don't recollect.

RE-DIRECT-EXAMINATION.

Q. 509. You will hear the Notary read to you cross question 501 and then state what you mean by your answer. Do you mean that the cross springs should rest upon the hind axle and bolster or do you mean the side bars should rest upon the hind axle and bolster, and if you mean neither state fully what you do mean.

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A. What I mean to say if there was a cross spring or a half elliptic spring upon the hind bolster and on the head block front there would be no perceptible difference in the springs when attached to the bars. But if the bars were attached rigidly to the hind axle and head block, there would be a difference as the Meisner's spring has no curve to take up the expansion of the spring, the same as the Timken has. That is what I mean.

JORAM PRIEST.

CHARLES E. MATLOCK, being duly sworn, deposes and says as follows :

Q. 1. State your name, age, residence and occupation.

A. Charles E. Matlock. Age, 33 next June, the 3rd of June. Residence, Indianapolis. Am a carriage painter.

Q. 2. How long have you lived in Indianapolis, Indiana?

A. About 21 years.

Q. 3. Are you acquainted with one S. E. Kierolf who was in the carriage business some years ago in Indianapolis, Indiana, and if so state how long and how intimately you have known him?

A, I don't know as I could state when I first got acquainted with him. I have known him ever since he came to work for George Lowe. I done some work and painting for him after he went into a shop of his own.

Q. 4. State about what year it was as near as you can remember when he went to work for George Lowe and when he went into a shop of his own. State where that shop of his own was.

A. As to the year he went in with Lowe, I don't have no recollection of that at all. '76 or '75 is when he went into a shop of his own on East Pearl Street, 240 I think is the number.

Q. 5. Are you acquainted with Joseph W. Buchanan, who is in the plow, wagon and general repair business?

A. I am.

Q. 6. How long have you known him?

A. Since '77.

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Q. 7. Do you know whether or not Mr. Kierolf ever sold or traded any buggy or other vehicle of his manufacture to Mr. Buchanan?

A. Yes, I know of one side bar buggy that he traded for a horse. I think he made the trade in February.

Q. 8. February of what year?

A. '78. February of 1878 was when the trade was made I think, or at least when he got the horse, whether the trade was made then or not he got the horse in February along about the first.

Q. 9. How do you know he got the horse along about the first of February 1878?

A. Well, the evidence of that is through what's-his-name's books. But I know it was 1878 because I took the horse home for him the first night.

Q. 10. On what kind of springs was the body of that buggy supported?

A. On cross springs, something similar to the Timken.

Q. 11. Please examine the springs I now show you marked "Defendants' Exhibit, Kierolf Springs," and state when, if ever you saw springs of that kind before.

Objected to because leading, for the reason that showing witness the exhibit suggests an answer.

A. I saw that kind of spring on that buggy—the Buchanan buggy.

Q. 12. Was it before or after Buchanan got the buggy that you saw springs like these upon it?

A. Before.

Q. 13. How long before, and where was the buggy when you first saw it with these springs on it?

Objected to for the reason that it is misleading, as the witness has not said he ever saw these springs upon the Buchanan buggy, but springs like them.

A. I can't state the exact time how long. It was in Kierolf's shop when being painted.

Q. 14 Do you know who painted it?

A. I did.

Q. 15. Was the time when you were painting that buggy the first time you had any knowledge af springs for side bar

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buggies similar to "Defendants' Exhibit, Kierolf Springs?"

Objected to as leading.

A. No sir.

Q. 16. When was the first time you ever had such knowledge, and how did you obtain it?

A. Through Kierolf He drawed a cut of a cross spring and showed me when working at Lowe's.

Q. 17. On what was that drawing made?

A. It was made on the trimming shop door.

Q. 18. What was Mr. Kierolf's purpose in making that drawing, if you know, and if you remember please state what he said at that time?

Objected to as calling for a conclusion of the witness, and not for facts.

A. I don't remember what he did say about it at that time. I think his purpose was to get a spring not to infringe on the Brewster spring. That is what I think.

Q. 19. Was that drawing sufficient to enable you to understand what kind of a spring it was intended to represent and the mode of its attachment to the buggy and gearing?

Objected to because it calls for a conclusion of the witness, and not for facts.

A. Yes. It was a spring somewhat similar to the one you have here, more of a sweep to it, I think, that is the cut had. I don't remember anything being said as to how it was to be attached to the body, but the attachment to the bar was to be same as the Brewster, that is the side bar.

Q. 20. Have you any knowledge of other buggies than the Buchanan buggy having cross springs similar to that buggy?

A. I have. I used one myself.

Q. 21. Any others that you know of?

A. I put the same kind of springs under two buggies.

Q. 22. When was that?

A. The first springs were made in 1877.

Q. 23. Who made those springs which you say were put on the first buggy in 1877?

A. Jack Wiley.

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Q, 24. Who made the springs for the second buggy which you spoke of?

A. I can't say who made them for the second buggy. That I can't swear to.

Q. 25. Please examine the set of springs which I now place before you and state if you have ever seen springs before like those used upon a buggy and attached to the spring bar like these springs are attached.

Objected to as leading, the answer being suggested by placing the springs before the witness.

A. I have. Mine were the same way.

Q. 26. When were they so attached and placed upon your buggy?

A. I can't state the exact time. The springs were made in '77, I know that well enough.

Q. 27. State as near as you can, the time when the buggy was made and put together complete and finished for use.

A. That is quite a hard matter for me to do now. I don't think the buggy was finished for use until sometime in '78, that is complete, along in the spring or late in the winter of '78.

Q. 28. Do you mean the winter of 1877-78, or the winter of 1878-79? About how long after the springs were made was the buggy finished, as near as you can recollect?

Objected to as counsel is cross-examining his own witness.

A. '77-'78. I had the springs on hand—I can't state exactly how long I did have them.

Q. 29. What became of that buggy?

A. I traded it for a horse.

Q. 30. When did you trade it and what was done with it before you traded?

A. I traded it in the fall of 1878. What was done with it?

Q. 31. Yes. Was it put on a shelf?

A. Oh, I used it myself from the time it was finished till I traded it.

The springs shown to the witness last are offered in evi-

dence. Notary will mark the same "Defendants' Exhibit. Matlock Springs."

Q. 32. You say you put springs like "Defendants' Exhibit. Matlock Springs" on two buggies. What became of the other buggy?

A. I sold it for cash. I don't know what became of it. I have never seen it. I don't know who bought it.

Q. 33. When was that buggy made and sold?

A. Well, I can't state the exact time of that, it was in '78, the latter part of '78.

Q 34. Who made the springs that went on that buggy?

A. I can't say who made them.

Q. 35. Where did you get them?

A. Well, I can't say where I got the springs that went on that last buggy, nor who made them. I think it was William Fike. I am not positive as to that though.

Q. 36 Where was Mr. Jack Wiley working or doing business when he made the set of springs that went on the first buggy?

A. On West Pearl street.

Q. 37. For whom was he working, if you know?

A. Jackson Wright.

Q, 38. Do you know whether or not Mr. Kierolf made other buggies than the Buchanan buggy, having cross springs similar to "Exhibits Kierolf Springs or Matlock Springs,' during the years 1877 and 1878?

Objected to as leading because the exhibits suggest an answer.

A. I couldn't swear that he did make any more. I don't remember that he made any.

Q. 39. Who gave Mr. Wiley instructions which enabled him to make the cross springs used on your first buggy?

A. Mr. Kierolf instructed me and I Mr. Wiley.

CROSS EXAMINATION.

X-Q. 40. You do not mean to say that the springs on either of the exhibits shown you are the identical springs which were on these buggies do you?

A. Not the identical springs, but like the springs on them. Not the springs on them buggies.

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X-Q, 41. The springs in "Exhibit Kierolf Springs" are not the identical springs that you painted on tne buggy which he sold to Buchanan?

(Complainant's Counsel here hands witness the springs.)

A. I can't say whether it is the same spring that came off that buggy or not, but they were made similar to these.

X-Q. 42. How many coats of paint did you put on that buggy which Kierolf sold to Buchanan?

A. That is a question I can hardly answer now. It was painted as an ordinary buggy is taken through. The springs underneath didn't have as much paint as the rest, I can testify to that. Those underneath springs we don't take as much pains with as we do the other parts of the buggy. As a general rule we don't.

X-Q. 43. You do where the spring shows, don't you, towards the ends?

A, Well, in some cases we do, but not in all. This work—these buggies I painted for Kierolf—weren't done up in first-class order, any how.

X-Q. 44. Were they painted up in second-class order?

A. Yes sir, they were.

X-Q. 45. Was this particular buggy, which he sold to Buchanan, painted up in good second-class order, or first-class order?

A. It was painted up in second-class order. It was not a first-class job of painting.

X-Q. 46. Do you know how many coats the ends of the springs had where they attach to the side bars, and do you know how many coats the side bars had on?

A. We generally give them in second-class jobs about three coats on the ends of the springs, that is, when attached to the bars. The bars generally gets five coats in a second-class job of painting.

X-Q. 47. Then that would be three coats for the ends of the springs besides the priming coat and five coats for the bars besides the priming coat, would it not?

A. No sir. The bars are generally primed before put together. All the wood-work is primed before they are put together. Then we give them a coat of oil and lead all over.

Over that we generally put dead lead. Then generally color next. Color varnish. Stripe and varnish, with the exceptions of the underneath springs. We don't take the pains with them we do with the body.

X-Q. 48. Don't you take the same pains with the ends of the springs where they are seen that you do with the other parts of the buggy?

A. We do not. Not springs attached under the body. A spring under the body can be painted with two or three coats and make them appear well The springs have a smooth surface.

X-Q. 49. I reckon you didn't paint the springs on Kierolf's buggy at all. did you? You painted the balance of the buggy, and let them go?

A. No. They had two to three coats at least.

X-Q. 50. What kind of a reach did that buggy have that Kierolf sold to Buchanan, a regular old-fashioned reach running straight from the hind axle to the head block?

A. That I don't remember.

X-Q. 51. How were the side bars attached to the hind axle, by a spring running across from side bar to side bar and resting up on top of the axle, like a half elliptic spring?

A. If my recollection serves me right the bars was fastened to the axle back and the head block in front.

X-Q. 52. What makes you think they were fastened in that way, because you have seen so many since fastened in that way, or from anything that you have in your mind about it?

A. My own that I put up was fastened that way.

X-Q. 53. Both of them fastened that way, that you put up?

A. I am not positive as to the last one. If it's the one buggy I had changed or ironed by Fike, it was not, if it was that buggy.

X-Q. 54. But the first buggy you had made, you are positive the bars were put on in that way?

A. I am.

X-Q. 55. And the second buggy you had made, the bars were attached to a spring which passed from side bar to side

bar, and rested upon the top of the hind axle and also a spring in front that rested upon the top of the head block, didn't they, or upon reflection were the side bars attached in front to the head block, and in the rear resting upon the top of the axle?

A. As I stated before there, if Fike ironed that second buggy it rested on the springs. I am not positive as to Fike doing that though. The buggy was elliptic spring changed to a side bar.

X-Q. 56. Well then you don't know whether the side bars in the second buggy rested upon springs in front and behind, or whether the side bars rested upon the head block in front and the axle behind?

A. I am not positive as to that—the way the bars did rest in that second buggy with the cross springs underneath.

X-Q. 57. Was there any change made in the wood work of the running gear of that buggy?

A. That I can't say. There would be necessarily have to have been on the elliptic spring one changed to a cross spring—the one that Fike changed rather.

X-Q. 58. Did the one that Fike changed have an ordinary old-fashioned straight perch running from the hind axle to the head block?

A. It did.

X-Q. 59. Was it changed in any particular, that is the perch, when you put the new cross springs on?

A. I don't think it was, the perch wasn't. If I remember aright the hind springs were throwed up a little to keep it from striking the perch.

X-Q. 60. Was the perch on the first buggy you constructed changed any when you put the new springs on?

A. It wasn't changed any. I don't understand what you mean by changed when it was made new out and out, the first buggy.

X-Q. 61. Who made the wood work of that buggy, the first buggy?

A. I think it was Fred Kolb. He was in the employ of O. V. Hugo at the time. He is the one I think done it, made the wood work.

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X-Q. 62. What do you mean when you say you think? Are you in doubt as to whether he did it or not?

A. I wouldn't want to make oath that he did or did not for I was dealing with two or three different parties at that time. exchanging work.

X-Q. 63. You painted both of these buggies yourself?

A. I contracted for the work. I don't remember of doing all the work myself though, every bit of it.

X-Q. 64. Do you remember of doing any of the painting on these two buggies yourself?

A. Yes. I finished them, I know that much.

X-Q. 65. Now do you mean to tell me that you finished painting—that is, put on the finishing coat of paint—on this first buggy, and used it for several months before you sold it, and can't tell me whether it had an old-fashioned perch running straight from the hind axle to the head block, or whether it had any perch at all?

Objected to as misleading and as not correctly representing the witness' testimony.

A. Well, as I stated when that question was given to me before, almost the same thing, he spoke as if it were a second-hand, wanted to know if it was changed, that is the reach. I know it didn't have an old-fashioned reach in it, but whether it had any reach or just a straight iron bar, I can't swear to that. I know I put up a buggy since with just an iron bar from the back axle to the front. I think the idea was taken from that. It was either that or no reach at all, I am not positive.

X-Q. 66. Well, you think now it might have had a straight iron bar running from the hind axle to the head block. If it was a straight iron bar how was it attached to the hind axle and how to the head block?

A. If it was an iron bar, it was dropped a little in the back and attached to the axle-bed or axle by a clip. In front Y shaped, that was attached, one arm of the Y rested on top and one under the head block and a king bolt ran down the head block and axle bed. As to them things I'm not so positive, but I know the cross-springs were under this buggy.

X-Q. 67. You are describing this iron bar from your

memory of the one you made lately and not from any recollection or memory of the first one you made with cross springs, aren't you?

A. As I stated before, if it had any reach in it at all it was of that description of a bar.

X-Q. 68 And you say this because you have now discovered it couldn't work any other way according to your description of it?

Objected to as putting an unwarranted construction upon the witness' testimony.

A. I haven't discovered anything of the kind. It could have worked without a reach.

X-Q. 67. Well, it couldn't work with a straight reach as you have described it, could it?

A. Not unless the springs were throwed up and the body raised higher.

X Q. 70. Were the springs thrown up and the body raised high?

A. I don't remember anything about that, how high it was raised, nor am I positive as to the reach underneath neither.

X-Q. 71. Well, you don't really know how the reach on either of these three buggies was constructed then, do you?

A. I do not. My attention wasn't attracted by the reaches at all. It was the springs at that time. I don't know whether they were striped, colored or what kind of wheels were on it.

X-Q. 72. And yet you do remember, and are willing to swear that these springs were attached exactly as in the exhibit before you, even to the number of bolts in the spring?

A. I am not willing to swear as to the bolts and attachments, but I am to there being cross springs under there.

X-Q. 73. You don't know then as to whether these springs ran clear across the bottom of the body or whether they were attached at the center, or whether they were attached by one bolt or two bolts, or whether they were attached by one bolt and a clip, do you?

A. I know they didn't run clear across the bottom, and as to the number of bolts I can't say. I know there was two

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on the one I put up, at least that went through the bar.

X-Q. 74. How far did they run across the bottom of the body?

A. That I don't know. I can't say how far they did run.

X-Q. 75. Who made this exhibit called your exhibit? Did you make it?

A. I did not. Jackson Wright made this exhibit, so far as I know. He claims to have used the same spring in 1877.

X-Q. 76. You and Wright and Kierolf and a lot others of you over there have been discussing this thing lately and comparing notes and dates?

A. I haven't see Kierolf in three years to speak to him, I don't know as I have seen him. I was out of Indianapolis for a little over two years. I got back to Indianapolis a year ago last November. I have passed Jackson Wright possibly two or three times in the past year and never had any conversation with him whatever.

X-Q. 77. How did you know he claimed to have made this in 1877 then?

A. He put up a buggy at that time with a spring on it and traded it for a shop. He moved into the shop January 1st, 1878. That was when he was to take possession of it.

X-Q. 78. Do you know whether Kierolf was at the St. Louis Fair in 1877?

A. I do not.

X-Q. 79. You were working for him in the fall of 1877. Don't you remember whether he went to the fair or not?

A. No. I don't remember.

X-Q. 80. About what time in the fall of 1877 was it that you first saw that Kierolf spring? Was it before the St. Louis fair or after?

A. I don't know. I don't know when the St. Louis fair occurred. I don't remember the time when I seen it first.

X-Q. 81. You are satisfied it was in the fall of 1877?

A. I am.

X-Q. 82. And you saw it as soon as it was brought up into the paint shop to be painted?

A. I can't say as I did. When my attention was first

called to the buggy it was setting against the wall, I think. I am positive it was setting against the wall in the shop.

X-Q. 83. When did you first go to work for Kierolf? When he first started his shop there?

A. I didn't do all of his work. The year, I think it was late in 1876 or early in '77. I am not positive as to that, but it was right along in there some time. I didn't have steady work there. At that time I was running four shops in Indianapolis, piece-work.

X-Q. 84. Was you there frequently in that paint shop during 1876?

A. I can't say whether I was there in '76 or not.

X-Q. 85. You mean you can't say whether you were there frequently in 1876 or whether you were there at all?

A. I know I was in the shop in 1876, but I can't state whether I was working for him in '76 or not.

X-Q. 86. Were you there frequently in 1877 up to the time you saw this buggy in the paint shop?

A. I was.

X-Q. 87. It couldn't have been up there any considerable time before you saw it, or you would have noticed it, wouldn't you?

A. I can't say I would have noticed it. Work was quite often run up there during my absence. When it was in a hurry, to be rushed through, ordered work, my attention was always called to it

X Q. 88. Who called your attention to it first, Kierolf?

A. I generrlly received my orders from Kierolf.

X-Q. 89. Do you think it had been up there any considerable length of time before your attention was called to it?

A. I don't know whether it had or had not been there any considerable length of time. I don't remember any circumstance about it.

X Q. 90. Couldn't you tell from its appearance whether it had been recently ironed or not when you went to paint it?

A. I could have told at that time. I don't remember how it appeared now.

X-Q. 91. How large was that paint shop?

A. I don't know the exact dimensions of the place. I

don't know. I can't say how big a place it is. It's a two-story, the paint shop on the second floor.

X-Q. 92. Can't you give us some idea how large that paint shop was?

A. No. I don't believe I could any ways near the size of it. There were two large rooms on the first floor. I know both rooms having double doors, two windows and a stair way in front. That's facing on Pearl street.

X-Q. 93. Do you think it was as much as fifty feet long, that paint shop?

A. Yes, I believe it was fully fifty feet.

X-Q. 94. And twenty-five feet wide?

A. Yes sir, it was wider than that.

X-Q. 95. Was it well lighted by windows in front and rear?

A. I think there were but two windows in front and one or two on the side, I am not positive which.

X-Q. 96. Was there much work in there during 1877 that you noticed from time to time?

A. Well, I can't state how much there was. At times we would have a rush that would last for two or three weeks perhaps and then drop off. Carriage business was dull in '77 and '76 around those shops.

X Q. 97. Kierolf did a pretty good business in 1877, didn't he?

A. I can't state. I never seen any of his books.

X-Q. 98. Well, from appearances he did a good deal of business, didn't he?

A. Not being there all the time I can't say how much he did do in the way of repairing.

X-Q. 99. Well, you say he had a rush of two or three weeks at a time?

A. Yes sir. In the paint shop

X-Q. 100. During those rushes, he employed other painters besides you, didn't he?

A. I most generally employed them. Kierolf didn't.

X-Q. 101. Well, about how many did you generally employ at Kierolf's shop during those rushes?

A. I kept one man there and a boy. My brother and I

would assist all we could.

X-Q. 102. About what proportion of the time during 1877 did you keep one journey-man and a boy there?

A. That I can't state. I have no idea how much time was spent there.

X-Q. 103. Can you tell about how often those rushes occurred in 1877?

A. I cannot.

X-Q. 104. Can you tell whether it was once or a half dozen times? Give us your best impression.

A. Well, I don't know as I can say whether it occurred once or twice or half a dozen times. Generally it occurred more than once. We generally had a rush in the spring and then one in the fall.

X-Q. 105. Can you give me any idea how much money Kierolf paid you for work during the year 1877?

A. I cannot.

X-Q. 106. Can't you approximate it?

A. No sir. I couldn't.

X-Q. 107. Do you think it was as much as five hundred dollars?

A. That I can't say. I don't hardly believe it was.

X-Q. 108. Comparing the work there with the work you did at other places during that year, and with the number of hands you had employed, do you think it was as much as $400?

A. I can't make any comparisons, because I don't recollect the amounts received in the other shops. I don't recollect the amount of work done.

X-Q. 109. How many was the most number of buggies that you remember of being in that paint shop to be painted at any one time?

A. I have no idea. I don't know as I counted them.

X-Q. 110. You don't seem to remember anything about anything?

A. I don't remember much about what we had in the shops in 1877. I couldn't tell you the exact amount of work, or anywheres near it that I have now in my two shops at Indianapolis.

X-Q. 111. You can tell me whether you have a great amount or a small amount or a medium amount, can't you?

A. I have a right smart now, for one man.

X-Q. 112. Have you more or less than you had in 1877?

A. Do you mean in Kierolf's shop, or all of them?

X-Q. 113. In Kierolf's shop.

A. I have more now than I had in the Kierolf shop.

X-Q. 114. Do you have more now than you had in all the shops in 1877?

A. No sir.

X-Q. 115. You say you worked for four shops in 1877. About how many hands did you work in all the shops in 1877 besides yourself and brother?

A. I think I run three or four besides him and I, that is at times, not regular.

X-Q. 116. Have you any idea what proportion of the work was done in Kierolf's shop?

A. No, I have not any idea.

X-Q. 117. From what you knew of Kierolf's business at that time, don't you think he could have raised thirty-five or forty dollars to apply for a patent if he had been desirous of so doing?

A. I don't hardly think he could. It was all I could do to get what little I earned out of him.

X-Q. 118. How much did George Lowe pay him per week when he worked for him?

A. Well, I couldn't say. He worked piece-work for Lowe.

X-Q. 118. Was he pretty steadily employed when he was working for Lowe?

A. I think he was.

X-Q. 119, Do you know how much of a family he had when working for Lowe?

A. I couldn't say how many there were. I think he only had a daughter. I don't know whether there were other members of the family or not.

X-Q. 120. What was this sketch on the door that you spoke of made with?

A. To the best of my recollection it was with a lead pencil.

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X-Q. 121. Was it an end view, side view or bottom view of the springs?

A. As near I can recollect it, he drew the shape of the spring as it is on here. Just a side view of the spring.

X-Q. 122. How large was that cut?

A. I don't remember the size of it. He just drew a side view there to give me an idea of what he had in his head.

X-Q. 123. Did he have any shackles on the springs?

A. I don't remember of his drawing any.

X-Q. 124. Were there any holes in the end of the spring in that drawing?

A. I can't say positively as to that whether there was or not.

X-Q. 125. I believe you haven't told me how large that sketch was yet. Do you recollect?

A. I don't remember how large it was.

X-Q. 126. Was it three inches or three feet long?

A. It was more than three inches, but whether three feet or not I can't say.

X-Q. 127. Have you any picture of it in your mind or memory now?

A. I have a faint recollection how it looked at that time.

X-Q. 128. It must be very faint if you can't give me any idea how long it was, ain't it?

A. Well, I don't see why I should remember the length of it. He drawed it just to show me the shape of it.

CHARLES E. MATLOCK.

JACKSON H. WRIGHT, being duly sworn, deposes and says as follows:

Q. 1. Please state your name, age, residence and occupation.

A. Jackson H. Wright. Age 49. Residence Indianapolis, Indiana. Am a blacksmith by trade, carrying on a carriage and wagon business.

Q. 2. How long have you lived in Indianapolis, and how long have you carried on the carriage business there?

A. I have lived in Indianapolis 18 years. I have been

J. H. Wright

in business for myself 10 years.

Q. 3. Are you acquainted with Charles Matlock, a carriage painter of Indianapolis, Indiana? If you are, state how long you have known him.

A. Yes. I am acquainted with him. I have known him between 10 and 11 years.

Q. 4. Please examine the springs now shown you and marked "Defendants' exhibit, Matlock springs," and state who made them and attached them to the spring bar and when they were made. I mean these particular springs.

A. These? I made those springs day before yesterday afternoon and I attached them to the bar as you see them. I made them complete as you see them.

Q. 5. Who requested you to make them?

A. Mr. Olin.

Q. 6. What instructions or directions did he give you when he requested you to make them? State as nearly as you can just what he said.

A. He asked me if I could and would make a pair of springs that would restore as nearly as possible or exactly the the form and manner of construction and attachment the springs that I made for Mr, Matlock's buggy and for my own bugg.y Those should be transposed, my own buggy and Mr. Matlrck's. Mine was first.

Q. 7. In what, if any respect do these springs, "Matlock's springs," compare with or differ from the springs referred to in your last answer, both as to the shape of the springs, their mode of attachment to the spring bar and their position on the spring bar?

Objected to as leading.

A. No material difference that I know of except the two springs might have been nearer together. None that I know of.

Q. 8. State when you first saw springs like or similar to the Matlock exhibit now before you?

A. I never seen any until those I made for my own buggy.

Q. 9. Please state when you made such springs for your own buggy.

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A. It was about September of 1877.

Q. 10. Please state what kind of a buggy that was. Describe the springs particularly. State how they were attached to the gearing and buggy body.

A. It was a piano-box body without top, with a Brewster gear, with end springs to which the side bars were attached. These springs were attached to the side bars by ordinary shackles or rather springs similar to these. The body was attached to this spring bar.

Answer objected to as tending to prove a prior use and knowledge of springs not set up in the answer or amended answer.

Q. 11. When, if ever, did you make another set of springs similar to the ones you used on your own buggy?

A. Very soon after I made my own I made a set for Mr. Matlock, like them.

Q. 12. Can you state about the year and month you made the set of springs for Mr. Matlock?

A. About October 1877.

Q. 13. What became of the set of springs you made for Mr. Matlock, if you know?

A. They were put under a buggy for him.

Q. 14. What became of your buggy having springs similar to the exhibit before you?

A. I traded it to Charles T. Wood in part payment for a shop and stock of tools where I now am.

Q. 15. When did you last see that buggy, and in whose possession was it when you last saw it?

A. About two months after I sold it—that was the about the first of March, 1878. It was in the possession of S. S. Merrifield.

Q. 16. What became of the Matlock buggy having these springs on, if you know?

A. I do not know.

Q. 17. How are you able to state that the springs which you made for your buggy were made about September 1877, and the springs for Mr. Matlock's buggy were made about October of the same year?

A. I just started in business for myself about the latter

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part of August of that year, and that buggy of mine was one of the first jobs I built. And Matlock's was done very soon afterward.

Q. 18. What time did you trade your buggy to Mr. Wood?

A. The latter part of December '77 or fore part of January '78.

Q. 19. Have you any data by which you can fix that date?

A. The date of the trade? Not more definitely than I have stated.

Q. 20. Where was your shop at the time you made the springs for your own buggy, and the set of springs for Mr. Matlock's buggy?

A. 233 West Pearl Street, Indianapolis, Indiana.

Q. 21. Where is your present shop?

A. 281 West Washington Street, Indianapolis, Ind.

Q. 22. When did you move into your present shop, or take possession of it?

A. The fore part of the month of January, 1878.

Q. 23. Have you any books of account in which you made entries of the work you did for parties while you were in your shop on West Pearl Street, and while you were in your present shop during 1878?

A. Yes sir.

Q. 24. Have you recently examined those books to ascertain whether there were any entries relating to the springs made by you for Mr. Matlock, or the trade you made with Mr. Wood, that you have spoken of?

Objected to as the books are not present upon which to cross-examine the witness.

A. Yes sir.

Q. 25. Did you find any such entries as those inquired about?

Objected to because the book is the best evidence as to what it contains.

A. Yes sir.

Q. 26. Have you the book or books with you?

A. Yes.

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Q. 27. Please refer to the book or books and point out the entry or entries therein to the Notary, that he may make a copy of the same.

(Witness hands book to Notary and points out item on page 8, which is as follows:

"Jan. 5th.

Chas. Matlock, Dr.

19–To 1 sett wheels & cross springs 9.50."

Q. 28. Please examine the entry you have referred to the Notary, and state in whose handwriting that entry, is and when it was made if you know.

A. It is in my own handwriting. It was made on or about its own date, January 5th, 1878.

Q. 29. You have said in one of your previous answers that you made a set of springs like the Matlock springs about October, 1877. Is this entry for that set of cross springs, or for a different set?

Objected to as cross-examining his own witness.

A. This entry is for that set of springs.

Q. 30. When did you deliver that set of springs to Mr. Matlock?

A. Soon after they were made in October, 1877.

Q. 31. How does it happen that the entry for them was made January 5th, 1878?

Objected to as cross-examining his own witness.

A. They were forgotten at the time they were delivered and about this date I was moving and we were settling up and he reminded me of them.

Q. 32 Please refer to page 19 of this book and to the following entry therein:

"Feb. 16th.

19–Chas. Matlock, Dr.

To ironing Gear by J. A. Wiley, 4.50."

And state if you know what kind of a gear was ironed for Mr. Matlock, to which that entry refers.

A. I don't know that I know what kind of a gear that refers to. It was for work that Mr. Wiley did for Mr. Matlock. Mr. Matlock owed Mr. Wiley this money, and Mr. Wiley owed me. We paid the debts without money.

J. H. Haight

Q. 33. Who is the J. A. Wiley referred to in that entry?

A. He is a blacksmith that worked for me in 1877, a blacksmith helper.

Q. 34. Did Mr. Wiley work for you about October, 1877, at the time you say you made Mr. Matlock's springs?

A. Yes sir.

Q. 35. Did any one help you to make the Matlock springs or did you have any other helper at that time?

A. Mr. Wiley helped me.

CROSS-EXAMINATION BY MR. ECCLES.

X-Q. 36. When did you make the entries in this book which you referred to, at the time the work was finished or at the time it was delivered? I mean the entries generally.

A. Neither. The entries of charges were generally made upon a slate or something similar and then transferred to the books the latter part of the same week.

X Q. 37. And you would take the day of the month as it appeared on the slate and put it in the book?

A. Yes sir.

X-Q. 38. And the day of the month appeared on the slate showing the date the work was finished, did it not, or the date it was done?

A. Generally.

X Q. 39. Then there is nothing in this charge of itself of January 5th, 1878 that will intimate to you when the work was done, is there?

A. No.

X-Q. 40. Then you rely on your memory alone, unaided by the book to determine the date in October?

A. Yes sir.

X-Q. 41. Did you ever make this entry in any other book, of January 5th, 1878?

A. I do not know. At that date I did not, of January 5th, I did not.

X-Q. 42. Did you do any other work for Mr. Matlock in November, 1877?

A. I think there are entries on the books showing I did.

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X-Q. 43. Will you look at the bottom of page 2 and state whether there is not there an account against Mr. Matlock?

A. There is.

X-Q. 44. Will you read it to the Notary, and let him take it down?

A. "Nov. 16th.

Chas. Matlock, Dr.

19–To welding shifting rail. New stud,		.50
To welding arm raised shaft iron,		.50
To 1 new bolt,		.10
		$1.10"

X-Q. 45. What year does that entry appear to be made in?

A. 1877.

X-Q. 46. What kind of a buggy was this you did that work on?

A. I do not know.

X Q. 47. Look in same book under date of November 17th, and read the charge against Mr. Matlock under that date to the Notary.

A. "Nov. 17th.

19–Chas. Matlock, Dr.

To 1 old box & setting		.35
To one load coal		3.25
		3.60"

X-Q. 48. Under what year was that?

A. 1877.

X-Q. 49. Look under date of December 1st, 1877 and state whether there isn't another charge against Mr. Matlock of that date for coal?

A. Yes sir.

X-Q. 50. Look under date of December 4th, 1877 and see whether there isn't another charge against Mr. Matlock?

A. Yes sir.

X-Q. 51. What is that charge for?

A. Cash $18.00.

X-Q. 52. Do you remember what that cash was for?

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A. Yes sir.

X-Q. 53. Please state what it was for.

A. It was on account of touching and varnishing a hearse. "On account" means part pay.

X-Q. 54. Look under December 20th, 1877, and see whether there isn't another charge against Mr. Matlock?

A. Yes sir.

X-Q. 55. That is for coal too, isn't it?

A. Yes sir.

X-Q. 56. See if there isn't another charge against Mr. Matlock, January 4th, 1878?

A. Yes sir.

X-Q. 57. Now in view of these charges isn't it a little singular in your mind that you should forget to make the charge for so important a thing as these cross springs at the time these springs were made when you made the charges for unimportant things?

A. No sir, it isn't singular in my mind. It is perfectly clear. Do you want an explanation of the matter, Mr. Eccles?

X Q. 58. Yes give me the explanation.

A. The first entry in this book bears date October 30, 1877. Prior to this date I was aiming at strictly cash or no book business. What little accounts I had were in the form of memoranda, of tickets. These springs were made prior to this date. Increasing business and trade with different parties compelled me to adopt a little more substantial system of book keeping. The memorandum of these springs was misplaced or lost and I was reminded of them by Mr. Matlock himself when he got those wheels and we were talking over our accounts, at the date of the record on the book.

X-Q. 59. Then I understand you to say that you had forgotten about making these springs for Mr. Matlock when you commenced keeping that book on October 30, 1877, and making the entries therein, and was only reminded of it by Mr. Matlock himself on January 5th, 1878, whereupon you made the entry in the book?

A. No sir. I had not forgotten the making of the springs, but had forgotten or omitted to carry forward the account, having lost the memorandum.

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X-Q. 60. Didn't you state that you were only reminded of this charge by Mr. Matlock on the 5th of January, 1878?

A. I was reminded by him that the charge was not in my account.

X-Q. 61. Well, why didn't you put down the items to wheels and cross springs and leave the amount blank, if you remembered him owing you for the springs, and didn't remember the amount?

Objected to as indefinite and misleading and not correctly representing the witness' testimony.

A. These wheels he got of me on the 5th day of January. We were figuring up the amount between us, looking over each other's accounts. He said to me, "Jack, those springs are not in the account." The price had before been agreed upon, and I was not aware they were not in the account until he mentioned it.

Adjourned.

X-Q. 62. You didn't put up the running gear for this buggy for Mr. Matlock, then?

A. Yes sir, I did. That is, I ironed it.

X-Q. 63. Had it half elliptic springs connecting the side bars to the back axle and head block as yours had, or old Brewster springs?

A. Yes sir, it had.

X-Q. 64. Was it a new gear, or an old gear made over, if you recollect?

A. Principally a new gear with old irons reworked.

X-Q. 65. Did it have an old-fashioned straight perch running from the hind axle to the head block?

A. Yes sir.

X-Q. 66. Was this the only vehicle that you ever put cross springs on for Matlock like the ones referred to in the Matlock exhibit?

A. I believe so.

X-Q. 67. Do you remember whether those springs were bent up at the ends like those in the exhibit or not?

A. Yes sir. They were about the same to the best of my knowledge and belief.

X-Q. 68. Might they not have been comparatively

J. H. Haught

straight like "Priest's springs No. 1," for aught you know now?

A. No sir. They were not.

X-Q. 69. Why did you bend them up at the ends?

A. First to get the compensation and again so as to leave the sweep of the elliptic spring where it leaves the bar and again to lower the body.

X-Q. 70. You mean by compensation to take up the lateral motion of the spring, don't you?

A. Yes sir.

X-Q. 71. Did Matlock tell you how to make the springs when he came to you, or did you know of your own accord?

A. He told me to make them like I made my own.

X-Q. 72. Did he ever tell you that that Kierolf's invention?

A. I think not.

X-Q. 73. Did you know Kierolf of Indianapolis at that time?

A. I had seen him.

X-Q. 74 Had you ever been in his shop in 1877?

A. I think I had, in the blacksmith shop.

X-Q. 75. Did you ever see any springs like yours in this "Matlock exhibit" there?

A. No sir, I never did.

X-Q. 76. Was you ever in his paint shop in '77?

A. No sir.

X-Q. 77. Did you have any conversation with him about springs in 1877?

A. No sir.

X-Q. 78. How far was his shop from your shop in 1877?

A. About a hundred yards short of one mile.

X-Q. 79. How far did you work from his shop before you went into business for yourself in 1877?

A. I worked in the same shop in which I went into business. The fore part of the year I worked for G. H. Shober up to April.

X-Q. 80. How far was Shober's shop from Kierolf's?

A. Nine squares.

X-Q. 81. Do you know where George Lowe's shop was in 1875?

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Objected to as well as this line of cross-examination, as the witness in his direct testimony has testified only to the spring of Matlock and his own, and counsel is notified that if he questions the witness on matter outside of that referred to in his direct testimony, he makes the witness his own on all matters not proper cross-examination.

A. Yes sir.

X-Q. 82. Did you ever visit that shop in 1875? If so how often?

A. Do you mean '75 or '77?

X Q. 83 I mean '75. George Lowe's shop.

A. I did not visit at all.

X-Q. 84. Did you ever visit it in '76?

A. I did not.

X-Q. 85. Was you in Indianapolis in 1875 and 1876?

A. Yes sir. Up to the first of April in 1875 I was in Cleveland, Ohio, from the first of January.

X-Q. 86. Then you moved to Indianapolis the first of April, 1875, and have been there ever since?

A. My family did not leave Indianapolis. I returned there on the first of April and have been there ever since.

X-Q. 87. Did Kierolf ever see your first set of springs that you set up, to your knowledge?

A I don't know that he ever did.

X-Q. 88. Did you, during 1877 or 1878 hear any talk among the carriage fraternity of Indianapolis about Kierolf's new cross spring which he had invented?

A. I did not.

X-Q. 89. What did Matlock say when he first saw your cross springs? Did he say Kierolf had one just like it?

A I don't know that he did.

X-Q. 90. Do you know Joe Buchanan of Indianapolis?

A. Yes sir.

X-Q. 91. How long have you known him?

A. Since 1874.

X Q. 92 Did he know anything about your first cross springs that you made, and did he ever see it?

A. I don't know that he ever seen it or heard of it.

X-Q. 93. You used it from September until '78, when

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you sold it, or did you leave it in the shop?

A. I never used it. It was new and bright when I traded it.

X-Q. 94. Do you recollect of Joe Buchanan being in your shop during the time that buggy was standing there?

A. I do not.

X-Q. 95. What part of your shop was it standing in? Where it could be easily seen by incomers and outgoers?

A. No. It was standing in a room not frequented.

X-Q. 96. Where was that room? What part of the shop?

A. Down stairs front.

X-Q. 97. Did you exhibit it to your friends during that time as a new invention?

A. No sir.

X-Q. 98. Was you keeping it secret as a new invention, or did you consider it a new invention?

A. I adopted it as an expediency to evade the Brewster royalty, and was more ashamed or afraid of the expediency than I was proud of it.

X-Q. 99. Why should you be ashamed of it? Hasn't it achieved great popularity in the last ten years as a spring?

A. Yes, but it hadn't ten years ago, and I was fearful that it was a doubtful expedient.

X-Q. 100. Why were you fearful that it was a doubtful expedient?

A. I was afraid it wouldn't answer the purpose, that it wouldn't stand.

X-Q. 101. Do you recollect of Kierolf ever being in your shop while that buggy was standing there?

A. I do not.

X-Q. 102. Do you think it is likely he was?

A. I do not.

X-Q. 103. I suppose you had several conversations with Kierolf and had more or less business with him, and met him more or less frequently from the beginning of 1877 until he left Indianapolis?

A. No, I did not. A half-dozen times, I think, would cover all the interviews I had with him.

Jas. W. See

X-Q. 104. Were those interviews about vehicles and buggies and the line of business you were both in?

A Not in particular, mere casual meetings.

X-Q. 105. You came all the way from Indianapolis here to testify at the solicitation of Mr. Olin, didn't you?

A. Yes sir.

X-Q. 106. And he paid your expenses and your time?

A. I expect him to.

JACKSON H. WRIGHT.

Adjourned.

JAMES W. SEE, being duly sworn deposes and says as follows:

Q. 1. State your name, age, residence and occupation.

A. James W. See. Age, 37 years. Residence, Hamilton Ohio. I am a consulting engineer.

Q. 2. What, if any experience have you had to enable you to read and interpret Letters Patent, relating to inventions of mechanical appliances, and what, if any, experience you have had as a practical mechanic? State also if you have any familiarity with the inventions relating to vehicles or vehicle springs.

A. I have been intimately connected with manufacturing establishments of various kinds for over twenty years. My experience began with an apprenticeship in a machine shop, and was followed by experience as a journeyman machinist, foreman, designer, and finally, consulting engineer, which latter position I now occupy in connection with a large number of manufacturing concerns throughout the country. The list includes some of the largest and most prominent concerns in the world. As consulting engineer, my clients submit to me samples or designs of products which they propose to manufacture, and it becomes my duty to determine whether the proposed device is properly adapted to the end in view, and whether it can be economically manufactured and to suggest remedies for discovered defects. Another, and most vital question presenting itself is as to whether the proposed device is dominated by existing patents, and if so, to suggest such changes, if possible, as will free it from such domination.

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This important branch of my work has for years brought me in cantact with Letters Patents, and in order to more thoroughly fit myself for the duty I have gone through a course of law, reading especially patent law. I am often called upon in litigation to explain mechanical devices, and interpret technical language. I have contributed very extensively to the technical press, and much of my writing has been reprinted, and employed as text books in technical institutions. I have been frequently consulted by manufacturers of vehicle springs, and have had frequent occasion to investigate the principle of springs and other details of vehicle construction, and in connection with general machine construction. I have had a very extensive practical experience with an almost endless variety of springs.

Q. 3. Have you examined, and do you understand the following letters patent, No. 157430, to Jos. Tilton and Rufus M. Stivers, for springs for vehicles, dated December 1, 1874, reissue of same patent No. 9542, dated January 25th, 1881. Letters patent No. 197689, to Henry Timken, a carriage spring, dated November 27, 1877, and Letters Patent No. 239850, for road wagon C. W. Saladee, dated April 5, 1881.

A. I have and believe that I do.

Q. 4. Will you please examine the several Letters Patent which I now hand you and refer to each by date and number in your answer, and state if you understand the several invention therein shown and described, and you will also please examine the springs now shown you, and state if you understand construction and mode of operation of each, and if you do understand the several Letters Patents and exhibits, please compare the same with the three patents first handed you to-wit, the Tilton reissue, the Timken and Saladee original patents, and state whether or not you find the inventions described in said three patents, in any of the exhibits, of the other patents referred to, and give your reasons for anything you may express.

A. I have examined the papers and exhibits referred to and believe that I fully understand them. The exhibits all refer to vehicle springs, and show various kinds and modifications of kinds, both as to form of spring, mode of operation of

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spring, mode of connection with vehicle.

English patent, No. 4092, 1817, Manton's exhibits springs arranged cross-wise of the vehicle. There is a spring at the front of the vehicle and another at the back, and each of these two springs is composed of two sections, lying side by side, with their thick ends rigidly secured to the body of the vehicle, and with their thin ends passing across the body, so that the two springs cross each other, the thin ends projecting beyond the sides of the body, where they are connected by suitable shackles to the axle frame. The body is thus virtually supported on four springs. As the body descends the heavy heels of the spring move downwards with the body, and the flection of the springs, between where they are attached to the body and shackled to the frame, gives the spring action to the vehicle. For brevity sake I will define these springs as double springs, crossing each other, and arranged crosswise of the vehicle, and with their shackled thin ends projecting beyond their rigidly attached thick ends.

The Hubbard patents, Nos. 7085 and 7796, show springs crossing each other and articulated together, at the crossing point. In Manton's English patent just referred to, the springs crossed each other, but were not attached to each other, or in any way united at the crossing point, each spring being entirely independent of its fellow. In the Hubbard system last referred to, however, the springs were coupled at the crossing points, so as mutually to support each other.

In Bissel's patent, No. 8105, several generic types of spring are shown. In figure No. 1 we have the ordinary elliptic spring In figure 2 we have the two elements of the elliptic spring reversed so as to form an hour glass frame. In figure 3 we have a spring formed of two crossing sections, with their thick ends rigidly secured, so that the entire length of the sections may flex. The two sections lie side by side, and are not connected where they cross. This figure three tipifies the spring of Manton's English patent except in the matter of the outer prolongation of the thin ends of the sections, a feature found in Manton's patent, but not in Bissel's.

In Hubbar's patent, No. 12890 we have again, the crossing sections, articulated at their crossings, the articulation being

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effected by a pivot bolt passing through both sections of the crossing. In Feister's patent No. 15126 we find crossing springs not articulated at the crossing.

In Labaw's patent, No. 34549, we have crossing springs, with the pivot bolt at the crossing.

In Stone's patents, No. 63668 and No. 63669, we have crossing springs substantially like that of Manton's English patent, that is, the sections lie side by side, they cross each other, but are not articulated and their heels are rigidly secured to the vehicle body.

In Steward's patent, No. 108649 we have again the sectional crossing spring, free of articulation, with the thick heels rigidly secured. In this case the thin ends of the springs do not project outwardly so far as the thick ends.

In Kenan's patent No. 107386, we have the crossing springs coupled at the crossing point, as is also the case in Hight's patents No. 151876, No. 169808.

In Wood's patent, reissue No. 6018, we have a pair of single springs, secured crosswise to the body of the vehicle, the outer free ends of the springs being coupled to the side bars of the axle frame.

In Cooper's patent, No. 200435, we have the arrangement of the Wood patent somewhat modified. Instead of springs reaching all the way across under the wagon body, from side bar to side bar, we have each spring formed of two sections, lying side by side, the inner end of each section being secured to the wagon body, while the outer ends are secured to the side bars.

The inner ends or heels of the sections reach but a little beyond the center of the wagon body. Describing the Cooper arrangement with reference to the Wood arrangement, it might be said that the single springs were cut in two, and their ends slipped by each other. This would lessen the total length of the springs, and when this deficiency was supplied by proper lengthening at the ends, we would find that the lapping arrangement had given us halves of greater lengths than would be possible without lapping.

In Newton's patent, No. 196536, we have crossing springs articulated at the crossing.

Jas. H. See

In the Timken patent, No. 239406 we have crossing springs not articulated at the crossing point. The sections in this spring are attached to the body at their large inner ends. The sections lie side by side, and the flection portion of each spring curves downward from where it is attached to the wagon body, and then curves upward to where it is shackled to the side bars.

In the exhibit marked Matlock's Spring, we have a spring in two sections. The sections lie side by side. They are attached by their inner heavy ends to about the central point in the total spring length. They curve downward from the center, and then upward to the shackle point. In many of the springs to which I have been referring, we have had two sections lying side by side and crossing each other. In the Matlock spring the two sections lie side by side, but they do not cross each other in the sense in which I have used the word crossing. I have used it in the sense in which I would apply it to the two legs of a letter X, or to the two legs of a saw buck; that is, there are four branches from a common point.

In the exhibit Kierolf spring, the construction and arrangement is substantially the same as in the Matlock spring, some difference appearing in the devices for attaching the thick ends of the springs to the wagon body.

The exhibit Priest spring No. 2, is a crossing spring, the sections being articulated by a pivot bolt at the crossing.

The exhibit, Priest spring No. 1, differs from the Matlock and Kierolf springs only in the manner in which the thick ends of the sections are attacned to the wagon body; though consideration should probably be given to the fact that the heels pass each other so far that the sections cross each other, in the sense to which I have referred, and also to the fact that the upward curves at the ends of the sections are very flat.

In complainant's exhibit A, the spring differs from the Matlock and Kierolf springs, only in the devices by which the heels of the sections are attached to the wagon body. The sections do not cross each other, and the curves of the same; as in the Matlock and Kierolf springs.

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Taking the Matlock spring, the Kierolf spring, and the spring, exhibit A, I would say that they were simply the springs of Manton's English patent, with the heel ends of the sections not lapped so far as to produce a crossing, and provided with various different contrivances for attaching the heels to the wagon body.

Adjourned.

It is proper to make one explanation regarding all the springs I have referred to, and in fact vehicle springs generally. I have referred to these springs, regardless of special type, as being secured to the bottom of the wagon body. The wagon body is the thing to be held up by the springs, but as a matter of fact the springs are not always attached directly to the wagon body. Such direct attachment is not always convenient, nor is the floor of the wagon bed always sufficiently strong for the purpose. It is, therefore, ganerally customary to attach a reinforcing bar across under the wagon bed, and attach the springs to these bars. These reinforcing cross bars have taken on a variety of forms, and have been made of various materials, and I understand that it is quite a commen custom among spring makers, to deliver the springs to the carriage makers with these reinforcing bars attached to the springs. This is especially the case when the springs are made in sections, as the spring maker is thus enabled to send out his compound spring with its parts assembled, and secured in proper relationship to each other, the reinforcing cross bar which he supplies, furnishing virtually the foundation to which he secures the parts. If the spring maker did not thus supply the cross bar, the carriage maker would receive the springs in fragments, so to speak, and in attaching them to the wagon body, or to its cross bar. he might not be able to secure that accurate relation and adjustment of parts in putting the spring together, which the spring maker could.

Objected to for the reason that it is all argument and not fact, neither is it the opinion of an expert.

As illustrations of such reinforcing bar, I call attention to Manton's English patent, No. 4092 of 1817, which states that, "the thick ends of the springs are fastened to a bar, on the ends of which bar irons are fastened, and they go beneath the

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body of the carriage, and are firmly fastened thereto, so as to fix the bar firmly to the body * * * In some cases the springs may be fixed immediately to the body of the carriage * * * and if there is sufficient substance of wood in the body or boot, or wherever the springs are to be fastened, there will be no necessity for the bar. But it must be observed that the particular manner of attaching and of fixing the springs in their places, may be left to the descretion of the workman, who must adapt the springs in respect to their dimensions, weight, strength and mode of attachment, to their places according to the particular kind of carriage, to which they are to be applied. For I confine my improvement in the application of springs to wheel carriages to the placing of such springs in a transverse direction, when one end of each spring is attached to the body of the carriage on one side, and the other end of the same spring is attached by a shackle to the carriage or frame on the opposite side."

As an illustration of the bar, serving as an assemblying foundation for the parts of a sectional spring, I refer to figure No. 3, of Bissel's patent, No. 8105.

I now take up the Tilton, Timken, and Saladee patents.

The Tilton patent relates to a crossing spring with a pivot bolt at the intersection. It shows a spring curving downward from the heel, and then upward to the shackle. The device shown would appear to be the spring of Manton's English patent, provided with the pivot bolt, shown in Hubbard's patent No. 12890. There are peculiarities of structure in the formation of the eye, for the central pivot and the reinforcing cross bar, has endlets to take the thrust of the sections, so far as the spring itself is concerned, it is like the Priest Spring No. 1. if the crossing point in that spring had a pivot bolt as in the Priest spring No. 2. The other exhibit springs, that is the Matlock spring, the Kierolf spring, and the spring exhibit A, differ from the Tilton spring in that the two sections do not cross each other, and can not have a pivot bolt at an intersection.

Referring to the Timken patent, No. 197689, I do not see after much inquiry that it shows or describes anything but the Tilton spring with the pivot bolt omitted. I cannot dis-

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cover in the Timken patent any element not shown in the Tilton patent, nor any mode of operation not incident to the absence of the pivot bolt of the Tilton patent. It would appear to me from the reading of the Tilton patent that it was in contemplation that the springs might be used with the pivot bolt left out. in which case my opinion would be, the Tilton structure would conform to the Timken description exactly. I may, however, be in error in assuming that the Tilton patent really contemplated the omission of the pivot bolt. The Tilton patent is a reissued patent, and contains a reference to the original. I have examined that original patent and find it makes no reference to an alternative construction with pivot bolt omitted. Comparing the Timken patent with the exhibits, the spring described would be responded to by the Priest springs No. 1 and 2. It would not be responded to by the spring exhibit A, as in that spring the two sections do not cross each other. The description of the Timken spring appears to me to be responded to exactly by the description above quoted at length, from Manton's English patent.

Referring to the Saladee patent, it would appear to me to set forth the Tilton or Timken springs with heel ends somewhat shortened to save steel, no new function being ascribed to the new structure. This shortening of the heels of the spring, instead of letting those heels extend clear across the wagon bed is a feature of Cooper's patent, No. 200435, and springs with their heels thus shortened are found in the exhibits Matlock springs, and Kierolf spring, and spring exhibit A. The shortening of the heels of these exhibit springs and of the spring of the Saladee patent. is in all cases about the same in degree, and these springs have no crossing point. This is the end of my answer, and the defendants' counsel being temporarily absent, I do not know that I can string the answer out any further to any advantage in saving time.

Counsel for plaintiff objects to the last sentence, as not being what the witness said, the witness having said that he didn't know whether he could string the answer out any longer with any advantage to the defendant or not, and asks the Notary to certify on the record that this is what the witness said.

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Counsel for defendant being called out for a few moments does not know what the witness did say, and asks the witness to state exactly what he said with such explanations as he desires to make.

Counsel for the complainant wants to know whether the Notary is going to certify his request or not, and if not, to state on the record why.

Counsel for the defendant requests the Notary to state the facts in the case whatever they may be, as defendant's case does not depend on hair-splitting technicality, and complainant's case does hang on such a slender thread that he desires that he shall have the full benefit of it.

Notary desires to state that the remarks made by the witness were not intended to be placed on the record and therefore paid no particular attention to it, and can tell exactly what he did state.

Complainant's counsel asks the Notary how he knows that they were not intended to go on the record.

A. Because witness said that was the end of his answer, and the remarks afterward he paid no attention to.

Witness desires to put on record his denial that he used or ever thought of using the words "to defendant or not."

Q. 5. Will you again please carefully examine the original patent No. 157430 granted to Jos. Tilton December 1, 1874, your attention being particularly called to clause 3 of the claims, and state as specifically as you can what you understand to be the invention, shown, described, and particularly referred to in said third claim, and then carefully examine the reissued patent for the same invention if it be so, No. 9542 dated January 25, 1881, your attention being particularly directed to claims 3 and 5 of said reissued patent, and state specifically what you understand the inventions to be which are shown and described in said reissued patent, and particularly referred to in said 3rd and 5th claim, and if there be any difference in the inventions described and shown in the original and reissued patents in relation to the claims referred to, please state clearly wherein the said inventions correspond or differ, and give your reasons for any opinion you may express.

Objected to by complainant's council, for the reason that

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it calls for a construction of the patents by the witness, which is a peculiar province of the court.

Defendants' council states to the witness, that he is simply asked to describe the inventions shown and described, and particularly pointed out in the claims inquired about.

A. The third claim of the original patent is for "the combination of two springs side by side, and connected together with the side sills and cross bar, for supporting the body in a horizontal position, between the side sills substantially as described." The subject matter of the claim as I understand it is illustrated in the drawings to the patent which are very plain, and I find no description in the specification of any structure, responding to this claim, and not shown in the drawings. The term "connected together" found in the claim, evidently means connected together at the crossing point of the sections, the burden of the song of the description being how this connection may be effected in various ways, and no intimation is given of a spring, in which the sections are not so connected in some way.

The third claim of the reissued patent is identical in language with the third claim of the original patent, except that the original claim uses the word cross bar, while the reissue claim uses the word cross piece, a difference which does not strike me as being material. The third claim of the reissued patent, therefore, in my opinion describes the same invention as described by the third claim of the original patent. The claim in both places ends with the language, "substantially as described," and the claims may therefore differ, in the invention they relate to, if the language of the specification differs in the two patents. The original patent, as before stated, made no mention of any spring not provided with a socket with a connecting bolt. The specification of the reissued patent states that this arrangement is simply a preferable one, and this change in language carries to my mind a description of the form of spring not described in the original patent.

The fifth claim of the reissued patent reads. "In combination with the body of the vehicle and the side sills or bars, the two springs crossing each other side by side and attached

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to a cross piece substantially as described." If the invention of this claim differs from that of the third claim, it is in the omission of the crossing connection, as an element in the combination. The claim does not appear in the original patent, and the invention described by the claim was not described in the original specification, but to my mind finds its first exposition and foundation in the alternative language injected into the specification on reissue.

Q. 6. Will you please compare the invention shown and described in the Tilton reissue, No. 9542, and particularly referred to in clauses 3 and 5 of its claims, with the invention shown, described and claimed in the Timken patent, No. 197689, dated November 27, 1877, point out particularly the similarities and differences, if any, between the inventions described in the Tilton reissue and the Timken patent, and give your reasons for such opinions as you may express.

A. The third claim of the Tilton reissued patent differs from the device of the Timken patent in that the sections of the spring of Tilton are connected together where they cross, while in Timken they are not.

The Timken device would, therefore, not respond to the third claim of the Tilton reissued patent. The fifth claim of the reissued patent sets of the Timken device exactly and would be responded to by it. Judging the Tilton invention by the matter of the fifth claim, I can see no difference between that invention and the invention of Timken's patent, No. 197689; and if the third claim of the reissued patent differs from the third claim of the original patent, such difference is to be judged entirely by the alternative language I have referred to, and this claim might, therefore, be said to describe also the alternative arrangement, and thereby correspond precisely to the spring of the Timken patent.

Q. 7. Please particularly compare the invention show, described and claimed in the Timken patent, No. 197689, with the structure, complainant's exhibit A, assuming for the purpose of your answer that the structure shown in exhibit A is to be used as the springs are used in the Timken patent, that is, for connecting the side bars and body of a side bar vehicle, and state whether or not you find the inventions to be substan-

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tially alike or substantially different, and if they differ, state wherein they differ, and if they correspond, state their points of similarity, and give your reasons for whatever opinion you may express.

A. They are alike in the following respects: In both cases each complete spring is formed of two sections. In both cases these sections attached by their heels below the wagon bed. In both cases the sections lie side by side. In both cases the sections curve downward from the point of attachment, and then upward at their outer ends. And in both cases the outer ends of the sections are shackled to the side bars. They differ in the following particulars: Timken's sections have their heels attached below the wagon bed, at the sides of the bed, while in exhibit A, the sections attach at about the center of the bed. In Timken's spring the sections cross the entire bottom of the wagon bed, to reach the opposite side bar, while in exhibit A the sections reach only from about the center of the bed to the side bar. And in Timken spring the sections cross each other like the letter X, while in exhidit A the sections have no crossing. Aside from this general comparison there are differences in detail. In the Timken spring the heels of the section are fastened independently and far apart, below the wagon bed by bolts passing through perforations in the springs, the flexible portions of the sections comprising the entire distance between the shackle bar and the first attaching bolt.

In exhibit A the heels of the sections are attached closely contiguous to each other, below the wagon bed, by a rigid clip, secured by bolts and clips, this rigid clip serving the threefold purpose of securing the heels below the wagon bed, of securing the two wheels in fixed relationship to each other, and of limiting the flection of the sections to a length extending from the shackle end of the section, to a point some distance nearer the shackle end, than the bolt perforation through the section.

Q. 8. In your opinion does the structure, complainant's exhibit A, when applied to a side bar vehicle, for connecting the side bars and body, contain the invention shown and de-

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scribed and claimed in the Timken patent No 197689, or does it contain a different invention?

A. The claim of the Timken patent referred to reads, "In combination with the side bars C C and body D, the springs G G attached to the underside of the body at opposite sides, then crossing each other and connected to the side bars on opposite sides, substantially as herein set forth." The structure, exhibit A does not contain this invention, for the reasons that the springs do not attach at opposite sides, and then cross each other.

The structure, exhibit A contains an invention, different from anything shown or described in the Timken patent, the exhibit A having spring heels attached close together at the center of the wagon bed, and secured by a rigid clip which maintains the relation of the two heels to each other, and restricts the flection of each section to a length considerably less than half the length of the entire spring.

Q. 9. Please compare the invention shown, described and claimed in the reissued patent, No. 10372, for vehicle springs, dated August 21, 1883, and granted to T. D. Olin as assignee by mesne assignment, from W. H. Stickle with the structure, complainant's exhibit A, and state wherein the said structure corresponds or differs from the inventions described in the claims of said reissued patent.

Objected to as irrevelant.

A. I have made the comparison and find the structure to be identical with the showing of the patent, except in one respect, apparently immaterial. Exhibit A has its cross bar attached, and it is straight or flat on top, while the patent shows such cross bar with its ends curved upward or elevated.

In dictating this answer I said two exceptions, but when I had completed my description of the first exception, I noticed that I had been misled by the drawing, and accordingly had my answer changed so as to read, one exception. The second exception which I thought I detected that the patent showed the two sections composing the spring, arranged somewhat obliquely across the vehicle. On closer scrutiny, however, I found this to be an optical allusion, brought about by the oblique lines, defining the sides of the cross bar in figure

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No. 1 of the drawing. Read the question?

CROSS EXAMINATION.

X-Q. 10. You think that the Tilton reissue and the Timken patent and the Saladee patent, are all anticipated, and consequently void for the reason that there is no invention in them, and if there is, they are anticipated by prior patents, don't you?

A. You have put me a question which appears to be beyond my competency, and I would much prefer that you waive the question, or put it in some less objectionable form.

X-Q. 11. You mean to say that you cannot answer the question, or that you do not like to answer it.

This question and the former one objected to, as calling for a legal construction of the patents, which is the office of the court, and not of an expert.

A. I mean that I dislike as a witness to be asked for mere opinion, as to the validity of legal instruments. It would be improper for me to say that I could not give an opinion on any subject after forming one, or that I could not form an opinion after looking into the question.

X-Q. 12. You speak of springs in all of these patents that you have referred to, whether they are springs running length way of the body, or cross ways, or whether they are wooden bars which are connected together, without any spring action or not, do you not?

A. You are nearly correct. In illustrating types of springs, I did so irrespective of the material of the spring, or of the article for which the spring was to be used, though I think all have been wagon springs, and irrespective of the particular of the application. But these matters have not been ignored when making comparisons relating directly to those specific features or qualities.

X-Q. 13. Does it make any difference in your mind as to the principle of these various inventions, whether the spring runs lengthwise of the body or crossway.

A. I think there is considerably difference in the ultimate effect wrought by these springs, when they are arranged fore and aft and crosswise.

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X-Q. 14. What difference does it make?

A. If the fore wheels of a wagon run over a log, the hind wheels will very soon run over the same log. An ordinary rough roadway may be viewed as a succession of uneven places to be reached first by the fore wheels and then by the hind wheels. The lower or wheel portion of a wagon is, therefore, moving in waves, and if the springs on which the wagon bed rests, run fore and aft, the springs will receive impulse in a waive like manner also, and a rider will experience somewhat of the sensations of a ship that pitches. When the springs are arranged crosswise there is a spring over each axle, and therefore a spring to independently receive each impulse, as it occurs at each axle.

X-Q. 15. Then you would not look for the same principle of construction for a cross spring in side bar vehicles, among constructions in vehicles with side springs, would you?

A. I see no good reason to the contrary. In the construction of vehicles, springs of identical character have been arranged crosswise and lengthwise of the vehicle, and vehicles are very common with springs arranged both ways in the structure. It appearing thus common to put springs of various types, in various positions under a vehicle, it would appear to me only reasonable in selecting springs or modes of application and arrangement to select them from wherever the features desired would be apt to be found.

X-Q. 16. Do you recollect how many of those patents, prior in date to the original Tilton patent, have cross springs, or springs running across from side to side of the vehicle?

A. I do not. I made no comparisons of the dates, some of the patents were, however, very old. Manton's English patent, for instance, which I recollect as bearing date of 1817.

X-Q. 17. Then you think that the principle of the invention of the carriage spring is the same, whether it runs lengthwise of the vehicle, or crosswise, do you?

A. So far as the principle of the spring as a spring is concerned, I answer yes. But so far as the result in the completed structure is concerned, I answer no. In view of what I have stated in the previous cross answer, principle is a very

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delicate word. A long, narrow ship will roll, but not pitch, while a very short and very wide ship will pitch and not roll. The direction of the motion is changed under the two conditions, and one might be saying, that viewing only the effect only upon the stomach, of ships motion in high seas, a long, narrow ship, involve a different principle, from a short wide one.

X-Q. 18. What is the principle of an invention?

A. I don't know. I would prefer to say that an invention was based upon a principle. It might probably, however, be properly said that the principle of an invention is the principle upon which it is based. To me, however, it seems wrong to use the term, principle of an invention, because most new inventions are based on old principles, and if a new principle should be discovered, new invention, is not always requisite for its exemplification.

X Q. 19. Isn't it a common term to say, the principle of an invention?

A. Very, and furthermore I am aware of the fact, that our patent laws expressly require that an inventor in making a specification for his patent, and in describing his invention "shall explain the principle thereof."

X-Q. 20. That being the case, what is the principle of the invention in the patent No. 7085, the drawing of which I show you?

A. Judging from the drawing, and I suppose you inquire, regarding the spring portion only:

X-Q. 21. I inquire in relation to the principle of the invention shown in that patent.

A. This is a pretty deep question. It is a wagon with wheels to it, and recognizes the established principle, that rolling friction is less than sliding friction, hence wheels on the vehicle instead of runners. It recognizes the principle that if you want to run a four wheel vehicle, in anything but a straight path, you must swivel the front axle, hence the reach from the hind axle is pivoted to the front axle. It recognizes the fact, that wagons are jolted, hence some provision for lessening the effect of the jolt. It recognizes the principle that springs interposed below the wagon will lessen

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the ill effects of the jolt, hence the interposition of springs. It recognizes the principle of action of cross reaches and springs and hence employs them. I might go on indefinitely until I finally got down, to the fact that the principle of the screw was recognized and appreciated, and hence screws were adopted at sundry points as a means of union. In this simple contrivance, there is the recognition of probably a hundred principles long since established. Taking the whole thing together, I would say that the invention was based on the principle of a wagon.

X Q. 22. Which runs straight and never turns?

A. Your which, is not interrogative.

X-Q. 23. What is it, if it isn't interrogative?

A. I give it up.

X-Q. 24. Then you do not know what that question means.

A. I do not, and do not recognize it as a question.

Adjourned.

X-Q. 25. Will you look at patent No. 200435 and tell me upon what principle that invention operates?

A. The principle of a side bar wagon with a spring across the front, and another spring across the back, each spring consisting of two sections laid side by side with their heels attached near the center of the wagon body, and with their outer ends attached to the side bars. The springs are flat-bladed, and between the springs and the wagon body there are interposed rubber cushions so that "the weight of the wagon body is first thrown on the outer ends of the springs which are depressed, then on the cushions, and finally on the parallel sections of the springs."

X-Q. 26. When the springs are pressed down on the cushions, then it becomes a double acting spring, doesn't it?

A. You are hardly correct in premises or conclusions. The springs are never pressed down on the cushions, but the cashions are pressed down on the springs, which is I suppose what you meant. When this pressing occurs, then the springs become stiffened by virtue of the cushions forming fulcrums. If, by double acting, you mean acting as a blade spring combined with a rubber spring, then you are correct.

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X-Q. 27. I mean by a double-acting spring, a spring that springs over a fulcrum, and one that has a double spring action, or a different spring action on each side of the fulcrum.

A. Then you are perfectly correct, as such action takes place when the springs are so far depressed as to strike the cushions.

X-Q. 28. Please examine patents, 151876, 171757, 107386, 12890, 63668, 34549, 7085, and tell me if they are not all double-acting springs in the sense of the last question and answer. and haven't they all a fulcrum to act on?

A. Before going over these patents let me state that a fulcrum is generally looked upon as a rigid element on which a lever rocks, but these spring questions involve in some cases what I will term an elastic fulcrum, that is, a pivot elastic within itself. I may illustrate this matter by referring to the pivot bolt of the Tilton patent as a rigid pivot, and to the cushions of Cooper's springs as soft pivots. I presume your question is to include all kinds.

The Kenan patent 107386 has fulcrums formed by rubber bands; patent 34549, by pivot bolts; patent 12890 by pivot bolts; patent No. 151876 by pivot bolts. These are fulcrumed springs and are double acting in the sense referred to. Patent 63668, appears to have no fulcrum and not to be double acting in the sense referred to. Regarding patent No. 7085 I cannot say whether it has a fulcrum or not, though I should judge it had the cross bar resting upon the intersection of the springs in which case the springs would be double acting.

X Q. 29. Look at patent No. 108649, and tell me what the springs are there.

A. Crossing blades, side by side, and rigidly secured by their heels in conjunction with a semi-elliptic spring connected with the free ends of the blades referred to.

X-Q. 30. Have you read the specification of that patent?

A. Yes sir.

X-Q. 31. And you say the letters A and B there represent springs?

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A. Yes sir. The specification refers to them as "spring braces," and states that they may be and shows them as formed of lamina of steel. I see no reason to hesitate in calling them spring elements.

X-Q. 32. I didn't ask you to interpret that patent. I asked you what the patent said?

A. You asked me what the letters A and B represented. I gave my opinion and reasons.

X-Q. 33. Do you think that spring is the same mechanical construction and has the same principle of operation as the Timken spring has, and as is shown and described in his patent 197689?

A. The spring has not the same mechanical construction exactly, but viewed as a spring, it has substantially the mode of operation ascribed to the device of Timken in his patent, that is length of springs and elasticity of motion is secured which are the only qualities ascribed by him to these springs except that of hanging the body low. In this matter of height of body, the Timken body is much lower than the Steward body, that is, judging from mere delineations in the drawings, but I do not understand that the Timken body can not be set higher than the top of the Steward spring, or that the top of the Steward spring cannot be set lower than the top of the Timken spring is shown.

X-Q. 34. Then you think that if the Timken spring had its butt or heel ends of the springs as you term it attached to the axles and the small ends of the springs attached to the ends respectively of a semi-elliptic spring and the body set on these springs it would be the same invention as it is now?

Objected to as misleading since it does not appear from the Timken patent that there any thin ends to the springs.

A. I do not know that the Timken spring would not work just as well and not change its mode of operation if the upper ends of the springs, instead of being attached directly to the wagon body were attached to the usual re-inforcing cross-bar, or to such a cross bar rendered more or less flexible by having the form of a semi-elliptic spring. I do not understand that there is any thick or thin end to the Timken springs.

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X-Q. 35. When did you first discover that there was no thick end or heel to the Timken spring?

A. Some weeks ago, when I first read the patent, I looked particularly for something indicating whether or not the description was limited to tapering spring blades or parallel spring blades, and I found nothing bearing on the point.

X-Q. 36. And you now swear that after reading the patent some weeks ago you came to the conclusion that the Timken spring was made of one blade of steel for each section of spring, and you think that it would be the same invention as described in the patent if the ends of the sections of the spring were attached to the ends of the axles permanently as shown in patent 108649 and then crossed each other and were attached respectively to either end of a half-elliptic spring?

A. You are wrong. I have never thought from the reading of the Timken patent that the sections of springs were limited to single thicknesses. The specification states otherwise, saying that the springs may be "composed of two or more plates near each end"; nor do I think the construction would be the same under the conditions you note. I think the action of the spring elements would be substantially the same.

X-Q. 37. Does the turning up of the ends of the spring in the Timken patent as shown in figure 1 and 3 of said patent have anything to do with the action of that spring?

A. The turning up of the outer ends of the springs as shown in figure 3 of the Timken patent has practically no effect except in stiffening the springs at their outer ends, the effect is precisely as if the springs were shortened a trifle and left straight, or as if they were left straight and the elasticity of their ends nullified to a great extent by being thickened.

X-Q. 38. You think in the case stated in your last answer that the invention would operate just as well as it does now, as shown in the Timken patent, figure 3?

A. I think so. I do not think the action of a spring constructed like figure 3 would be satisfactory and do not think that figure would ever be followed in practical construction. As the wagon bed descends. the lower ends of the

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springs tend to separate and it would be highly desirable that the upturned portions of the springs be flexible enough to yield somewhat instead of spreading the side bars apart unless the side flexibility of the side bars themselves be depended upon in performing part of the spring function. I think in practice these upturned portions should be thinner and more flexible and that the curve of the up turns should be so large and free as not to make the curved portion too rigid. In the Steward patent No. 108649 this same side expansion of the crossing springs takes place but the co-incident expansion of the semi-elliptic spring forming the attachment of the cross springs compensates for side strains.

X-Q. 39. If in the Steward patent just referred to you didn't have any semi-elliptic spring to take up the side strain of the cross springs, but if instead of the semi-elliptic spring you had a rigid bar you would then be compelled to introduce some device to take up that side motion or strain in order to get spring action in the spring braces A and B, would you not?

A. You are perfectly correct. Where crossing springs are employed in the manner shown in the Steward and Timken patents there is always this side expansion as the springs are depressed and to avoid its evil effects an expansion joint of some character must be employed at one end of the sections. Such an expansion joint is found in the Steward patent in the side expanding top spring, and in the Timken patent it is found in the side expansion of the side bars, if the side bars are weaker than the stiff upturned tips of the sections as I think they would be in a construction following the Timken drawing. I would give it as my opinion, however, that in constructing the Timken spring, a person should provide ample means of side expansion without calling upon the side bars.

X-Q. 40. You think then, upon reading that specification over carefully and upon looking at the upturned portions in figure 3, and the shading on the springs in figure 1, showing an upturned portion and also a downward flection on the spring sections and the fact that the side bars are shown to be rigidly attached to the axle and bolster and the springs at-

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tached to the side bars by rigid clips or shackles, that any mechanic skilled in the art in constructing said vehicle would provide for the spread of the springs in the upturned portion of the end of the spring?

A. In view of the fact that the side expansion of crossed springs had long been recognized and that it had been common to compensate for such side expansion, I think the skilled mechanic would undoubtedly provide for it in constructing a Timken spring, notwithstanding the fact that the side bars are attached to the bolster and rear axle, as was common before the Timken invention, it might be found in practice they were sufficiently flexible side-wise to answer the purpose. A skilled mechanic reading Timken's specifications and studying his drawings might reach the conclusion that it was Timken's special design to have the spring blades stiffened at each end and to rely entirely upon the side bars for side expansion. I notice particularly that Timken shows his side bars arched, thus giving them more vertical than horizontal stiffness, though this is probably done in view of the fact that the load imposes vertical strains.

X-Q. 41. You have studied the state of the art and examined it carefully. Is there in any one of those patents a single instance where the side motion or spread of the springs is taken up by the bend at the end of the spring, or is there a single one where the spring is bent up at the end for that purpose? I mean the ends of the cross spring.

A. Quite a number of the patents and exhibits show ends turned up to engage shackles, which, so far as I can see, is the only purpose for turning them up in the Timken patent. In some of the exhibits the upturned portions of the springs are in large, free curves, and are thin and would undoubtedly compensate for the expansion referred to. I think such an expedient would occur to the skilled mechanic so that he could so modify the construction shown in the Timken patent. As examples of springs thinned at their ends and upturned and fitted to engage a shackle, I would refer to springs frequently found on coaches, and to the exhibits, "Matlock's Springs," "Spring Exhibit A," and "Kierolf Springs." to the springs shown in patent 239406, of Tim-

Jas. H. See

ken's, to the seat spring in Fiester's patent 15126 in which the thin upturned portion is so much thinned and curved and rendered flexible that even the pivoted shackles would not be needed. Semi-elliptic springs well known in the art, most always have thin curved ends fitted for shackle pivots, and Wood's patent reissue No. 6018 sets forth semi-elliptic springs with their centers secured to the wagon bed and with their outer ends couples to the side bars, an arrangement which would undoubtedly compensate for the side expansion unless the curved ends of the springs were constructed to be less yielding than the side bars. Catterson's English patent No. 2642 shows cross springs with thin turned ends in which side expansion would apparently be completely compensated for. See, for instance, figure 11. The springs shown in this figure is a perfect example of a spring formed of two sections lying side by side and pointing in opposite di rections and provided at their ends with thin, flexible, curved portions to compensate for side expansion and there shackled.

Latter part of answer objected to as not responsive to the question.

Adjourned.

X-Q. 42. In complainant's exhibit A the crab is used to hold the sections of the spring permanently together, and to connect them together as well as to connect them to the spring bar, is it not?

A. Yes sir.

X-Q. 43. Would its function be the same as far as connecting the springs together is concerned if it were turned upside down and the flanges at the side of the sections of the spring were pendant instead of running upward or next the wood as they do in the exhibit?

A. I do not understand that that function need be modified in such modified construction.

X-Q. 44. If it were so modified would its function be changed or would it perform the same function as it does now so far as connecting the springs are concerned?

A. So far as the sections of said spring to each other, the function would not be modified.

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X-Q. 45. It is very desirable that the sections of the springs in all these cross spring devices that the heels of the sections should be connected together in some way permanently so as to form a continuous rigid spring laterally from shackle to shackle, so as to prevent the body from pitching forward or backward on the running gear, is it not?

A. I should say it would.

X-Q. 46. And these flanges on the crab assist in doing that thing, don't they?

A. They do.

X-Q. 47. You say in your direct examination that what you mean by a cross spring is two springs that cross each other at a common point or radiate from a common center like the letter X. Does the Timken spring do that?

A. The term cross spring might be misleading as referring indefinitely to the form of the spring or to its direction of application to a vehicle. By the term "cross-springs" I would mean springs arranged across a vehicle or other object as distinguished from lengthwise, and this regardless of the special form of spring; but by the term "crossed spring," I would mean a spring formed of two elements crossing each other, after the manner of a letter X or a saw buck, and this regardless of how the springs were applied on an object or whether they were applied at all. The Timken spring is a crossed spring.

X-Q. 48. And it would still be a crossed spring if the butts were placed close enough together to allow the spring portion of one section to barely cross the spring portion of the other section, would it not?

A. It would still be a crossed spring, but might not still remain the Timken spring to which I think your question had reference; it appearing that the Timken springs or sections have their heels attached at opposite sides of the wagon body so as to secure length of spring.

X-Q. 49. Is "Defendants' Exhibits, Priest's springs Nos. 1 and 2," provided at the end with any curve to take up the spread and contraction of the springs?

A. They are curved and thin at the curves. Whether they are sufficiently thin or sufficiently curved or not to com-

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pensate for expansion, I cannot judge without knowing what new curves they will take when subjected to the weight of the empty wagon while their curved ends or shackle points rather are prevented from expanding, as for instance by unyielding side bars.

X-Q. 50. Do they operate on the same mechanical principle?

A. Compared with what, please?

X-Q. 51. Suppose I should construct a vehicle exactly like the Timken, except I attach the heels of my sections of springs half-way between the center of the body and the opposite side and then cross them over and attach them to the side bar at the opposite side in exactly the same way as the Timken is, would that device respond to the Timken claim?

A. I think not. The claim does not recite specifically how the tips of the springs are to be connected to the side bars but does recite specifically that the heels are to be attached to opposite sides of the body.

X-Q. 52. Suppose I should attach the heels of the springs to the bottom of the body or its equivalent just as they are in the Timken in every particular except that I cut them off and stop them within two inches of the side of the body. Would that respond to the Timken claim?

A. It would be a departure to just that degree, and would be leaving out of the structure to that degree one of its primarily described merits, namely, length of spring.

X-Q. 53. Would it be an infringement on the Timken claim?

A. I doubt my competency to answer this question, as it would require that I presume upon a legal scope for the claim which I do not suppose you desire me to do

X-Q. 54 Is there any difference between the mechanical action of the spring in "Defendants' Exhibit. Kierolf Springs" and the mechanical action of the Timken spring?

A. Only in degree of suppleness which would be superior in the Timken spring by reason of increased length of spring and parallelism of blade.

X-Q. 55. Is there any difference between the mechanical action of "Defendants' Exhibit. Kierolf Springs," and "Complainant's Exhibit A"?

Jas. H. See

A. The motions under action would be precisely the same except as modified by varying stiffness and strengths. The spring sections of exhibit A are comparatively shorter than those of the Kierolf springs, the flection in the Kierolf spring taking place on rebound for a length extending from the shackles to points past the center of the vehicle or spring bar, while in exhibit A the crab restricts the flection length to much less than this.

X-Q. 56. Look at patent No. 239850 and compare the invention therein described and claimed with complainant's exhibit A and tell me if "exhibit A" does not respond to that claim?

A. The sections of the Saladee spring are described as flexing for their entire portions between the center of the vehicle and the side bars. The sections in "exhibit A" are not so arranged. Discarding this difference, which appears immaterial, exhibit A would appear to respond to the terms of the claim.

X-Q. 57. Doesn't "exhibit A" have flection in the spring sections from center of spring bar to the shackles of the spring?

A. Not on the rebound or upward motion, but the departure is slight and immaterial.

X Q. 58. So that device, "complainant's exhibit A" will respond to the claim in that patent?

A. In my opinion the device will respond to the terms of the claim.

X-Q. 59 Did you ever see a Timken spring put up and in use?

A. By Timken spring I suppose you mean a spring such as is set forth in Timken's patent No. 197689. I never did that I know of.

X-Q. 60. Did you ever put up a spring or spring vehicle like any of these patents which have been alluded to in this examination either yourself or under your superintendence?

A. I have applied elliptic, semi-elliptic and other forms of springs to vehicles, but have never applied any of the double section springs to vehicles. I have made such springs, crossed springs, for other purposes.

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X-Q. 61. Are you acquainted with what is known in the trade as the Timken spring, and what is known in the trade as the Olin spring, and what is known as the Saladee patent or Automatic spring?

A. Such springs have been pointed out to me but I can hardly say I am acquainted with them.

X-Q. 62. Haven't you frequently heard of the Timken spring, and hasn't it in the last ten years attained great popularity among vehicle users and the trade?

A. I know nothing of the matter, and have not been in the position to know what the trade thought of the Timken spring.

X-Q. 63. Did you ever practically test any of these springs or the Timken spring either to ascertain how they operated under pressure and action?

A. Not on vehicles. I have had experience with an endless variety of spring elements, in various kinds of machinery, and am very familiar with the principles of flexion involved in spring elements.

X Q. 64. Do you know what the trade, I mean those interested in the carriage business were seeking after and had been seeking after for a long time prior to the Timken patent in the construction of vehicle springs and vehicles?

A. I understand it to be what they have sought for since and are still seeking, namely, smooth riding, long life of structure, and economy of first cost.

X-Q. 65. Don't you know they had long been seeking after a side bar vehicle and springs of such construction as would lower the body, so as to make a piano-box body easy of access?

A. I understand this to be the case and such was done before the date of Timken's patent, and efforts are probably now more than ever being made to cheapen the structure, improve the action, etc. Taking the date of the Timken patent I think there have been many times more inventions made in side bar springs after than before that date. Judging by popular expressions which have reached me I have been led to believe that the Brewster side bar spring vehicle marked the turning point and became the popular rig and turned the di-

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rection of spring makers, Timken, and probably a hundred others, into the side bar channel.

X-Q. 66. Where did you get the term "sectional cross-springs," and how long have you known it?

A. I do not know, and I may have coined the term to make my meaning clearer. There is a great confusion of technical terms, and in my professional practice, I have always adopted the plan of substituting new expressive terms for old ones equally as good if custom had been applying two or more dubious meanings to the old one.

X-Q. 67. How long have you known the term "sectional springs," or "sectional cross springs"?

A. I have before answered that I do not know.

X-Q. 68. Did you ever testify before in a case in which this "complainant's exhibit A" was used, or one similar?

A. I did, a very short time ago, a few weeks only I think.

X-Q. 69. Did you then testify that it made no difference whether the springs in the Stickle patent were attached to the truss-bar or the spring-bar, or the bottom of the buggy, or words to that effect?

A. I do not know. I might have done so.

X-Q. 70. You say in your direct examination, "it is generally customary to attach a re-inforcing bar under the wagon and attach the springs to this bar, but as a matter of fact the springs are not always attached directly to the wagon body and that it is quite common to deliver these springs attached to the spring bar to parties who desire to use them." From whom did you get this information?

A. The first part of the language quoted, somewhat transposed I think, represented a conclusion drawn from many patents I have examined and many wagons I have inspected, the majority of them showing some reinforcing spring feature attached in some manner to the wagon body. The other conclusion was drawn from having seen springs so provided on sale.

X-Q. 71. You didn't obtain that information from Mr. Olin?

A. No sir. I have no recollection of ever hearing Mr.

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Olin or any one else mention the matter, although he or others may possibly have done so.

X-Q. 72. When you read a specification and try to discover the invention therein set forth, do you give more attention to the printed or written matter than you do to the drawing, and when they differ, which do you give the precedence, to the drawing or the printed matter?

A. To neither generally. I try and reconcile them. I never lose sight of the fact that drawings are most always made by persons having had some experience in mechanics, and these pictures are generally closely scanned by inventors in signing their applications for patents, while the specifications are too often drafted by patent solicitors, who could not clearly define the difference between a shovel and a spade. The applicant generally signs these specifications after one hurried reading, and after the application is filed in the patent office and the general merit often knocked out of the case when the ruthless examiner cites the state of the art. The solicitor often further mutilates the specification by warping it around to fit the new and narrowed conditions and get his client some kind of a patent. I have had occasion to examine the file wrappers of many hundred patents, and it is astonishing the changes sometimes made in this matter. The drawing is more trustworthy where is an undoubted inconsistency. Where one instrument supplies an omission in another, and the two are consistent there can be no preference, and their readings must be aggregated.

X-Q. 73. I believe you are a solicitor of patents and mechanical expert, are you not?

A. Yes sir. I make patent drawings and draft the specifications and sometimes produce exactly the evil results pointed out in my last answer, even with the advantage of having made the drawing.

X-Q. 74. And a part of your business is to testify as a mechanical expert in patent cases?

A. I am often called in that way.

X-Q. 75. And you try in your testimony to make every thing as strong for the man's side of the case who employes you as you can, consistently with truth, do you not?

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A. It is a delicate task to define the peculiar province of the expert, but you are not very far out of the way, as the expert comes very near being an advocate under oath. In my own case I have always as far as I possibly could avoided any interest of any character in the result; in other words, I school myself into an indifference as to the outcome.

RE-DIRECT-EXAMINATION.

Q. 76. Referring again to the Steward patent No. 108649 dated October 25, 1870, your attention being directed to the cross springs A and B and to the spring marked G in the Timken patent of November 27, 1877, do you think as a mechanic these springs could be used interchangeably one for the other, or would it require invention to make such substitution?

A. The length distances being the same in each case, I do not hesitate an instant in saying the parts A–B of the Steward would interchange with the parts G–G of the Timken patent and would behave after the interchange in the same manner excepting as modified by the tapering character of Steward's blades, they being thin towards the tips.

RE-CROSS-EXAMINATION.

X-Q. 77. What is invention?

A. The contrivance of new means for the production of old results or the adaptation of old means to the production of new results.

JAMES W. SEE.

Counsel for defendants herewith offer in evidence the several letters patent referred to in the deposition of the last witness, and requests the Notary to mark the same "Defendants' Exhibits."

Manton English Patent No. 4092 of 1817.
Catterson English Patent No. 2642 of 1853.
U. S. Patent to Hubbard No. 7796.
Hubbard Patent No. 7085.
Steward Patent No. 108649.
Hubbard Patent No. 12890.

Bissell	Patent	No.	8105.
La Baw	Patent	No.	34549.
Stone	Patent	No.	63669.
Stone	Patent	No.	63668.
Kenan	Patent	No.	107386.
Wood	Patent	No.	139348.
Wood re-issue	Patent	No.	6018.
Hight	Patent	No.	151876.
Cooper	Patent	No.	200435.
Newton	Patent	No.	196536.
Timken	Patent	No.	239406.
Vernier	Patent	No.	84446.
Hight	Patent	No.	169808.
Fiester	Patent	No.	15126.
Baird	Patent	No.	171757.
Hubbard	Patent	No.	8244.

STATE OF OHIO }
COUNTY OF HAMILTON } ss.

I, David S. Oliver, a Notary Public, in and for the County of Hamilton and State of Ohio, by consent of Counsel Acting Examiner in the above cause, do hereby certify that the foregoing depositions of William H. Stickle, S. E. Kierolf, R. S. Kitley, Philip Fisher, Joseph W. Buchanan, Joram Priest, Charles E. Matlock, Jackson H. Wright, and James W. See were taken on behalf of the defendants pursuant to the notice hereto annexed at the time and place named therein, that the said witnesses were duly sworn and examined and the depositions of said witnesses were reduced to writing and read to them by me, and by them subscribed in my presence; that the several exhibits referred to in said evidence were introduced in evidence and identified by my signature; that William M. Eccles, of St. Louis, Mo., appeared on behalf of complainant, and Geo. J. Murray, of Cincinnati, Ohio, on behalf of respondents; that I am not connected by blood or marriage with either of said parties, nor interested directly nor indirectly in the matter in controversy.

In witness whereof I have hereunto subscribed my name and affixed my official seal this 8th day of March, A. D., 1887.

DAVID S. OLIVER,

Notary Public, Hamilton County, Ohio, and Acting Special Examiner.

272–305 And afterwards, to wit, on the 28th day of March, A. D. 1887, the following depositions *was* filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Deposition- of Alonzo Rolf et al.

* * * * * * *

Alonzo Rolfe

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HENRY TIMKEN,
vs.
T. D. OLIN, ET AL.

ALONZO ROLFE, being duly sworn, in the above case testified as follows:

Q. 1. State your name, age, residence and occupation?

A. Chicago, keeps grocery and meat market, age, fifty-three years.

Q. 2. How long have you resided in Chicago, and where did you reside ten or twelve years ago?

A. Resided in Chicago a little over four years, and before that lived in Detroit, about 28 years.

Q. 3. In what business were you engaged in while in Detroit, between the years 1870 and 1880?

A. Dealing in horses, carriages, harnesses, horse-clothing robes, blankets, etc.

Q. 4. While you were so engaged, please state what kind of side bar vehicles you used or dealt in, and state what kind of cross springs, if any, were used on such vehicles?

A. We had several makes. We had Brewster, and we had a spring similar to this (pointing to defendants' exhibit, Priest spring No. 2.) This was in 1875. We had several others. We had the Whitney spring.

Objection by complainant's counsel, Mr. Eccles on the ground that the exhibit being before the witness at the time the question was asked and answered suggests the answer to the witness.

Q. 5. Please state when you first had knowledge of the exhibit Priest spring No. 2, or springs similar to it, and state if you know who made the first one you ever saw.

A. Joram Priest. First saw the spring on the last of May or the first of June, 1875.

Q. 6. For whom did Mr. Priest make this spring that you saw as you say, on the last of May or the first of June, 1875?

A. Made it for me.

Q. 7. State how it was used?

A. It was attached the same as this spring here (pointing to defendants' exhibit, Priests spring No. 2.) It might not have had this bolt through here. (Referring to the center

bolt.) I would not be positive about that, but I think it did.

Objected to by Mr. Eccles upon the same grounds as to question and answer No. 4.

Q. 8. What became of the buggy having such springs upon it?

A. I sold the buggy to a fellow by the name (they call him Dad Erwin) of East Saginaw. I sold him that with a horse to go to East Saginaw. I used it for my own driving here in 1875, and letting, and used it in Chicago, coming back here in 1877, and sold it to Erwin.

Q. 9. Do you or not, know of other buggies having the same character of springs as the last one you referred to?

A. Yes sir. I built several of that style or had them built for me.

Q. 10. Can you give the names of the parties who built them for you?

A. Yes sir.

Q. 11. Please do so, and state when they were built if you can.

A. Well, Bushway on State street built several, Joram Priest built some in 1875, later on young Bushway built some, Joseph his name is.

Q. 12. State if you know what has become of these several buggies, having these cross springs which you have referred to?

A. I sold two or three of them in Chicago,and I think I sold one to Daniel Rearden here, and he took it with him to Chicago, and I am pretty positive two of the buggies with that spring on went to England, an open buggy and a top buggy, and one of the buggies that went to Chicago was sold to Major Anthony who kept a stable at I think 133 Michigan avenue. Then I changed over some elliptic springs and put these springs on.

Q. 13. If there were any difference in any of these several springs that you used either from each other, or from the spring before you, please point out such difference or differences.

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A. Nothing that would change the springs, the bearing of the springs materially.

Q. 14. Where was Mr. Priest's shop, at the time he made the first set of springs for you, which you say were used on your own buggy?

A. Jefferson Avenue, next door to my own carriage depot. The number I don't recollect.

Q. 15. How are you enabled to state that it was in May or June, 1875, that this first set of springs was made for you by Mr. Priest?

A. I fix the time by when I came from Denver in 1875, and when I came home, he had them set up for me. and this was in May or June, 1875.

Q. 16. Do you mean that you had given him the order to make them before you went to Denver, or was the order given after you returned from Denver?

Objected to as leading, and a cross-examination of his own witness.

A. The order was given before I went to Denver.

Q. 17. What part of the work on the vehicles was made by Mr. Priest, in addition to making the springs?

A. A board put into the body (back and front) similar to this, (pointing to board attached to defendants' exhibit Priest's springs No. 2) also side bars to clip the springs to the body, the same as this one is, (pointing to same exhibit as before) the side bars don't show in this.

Q. 18. Are you familiar with what is known as the Timken spring?

A. I am.

Q. 19. When did you first see such spring or hear of its being in the market?

A. I think it was in the spring of 1878, the first time I saw it.

Q. 20. Did you know that Mr. Timken had a patent on that spring the first time you saw the Timken spring?

A. No sir.

Q. 21. When did you first learn that Mr Timken had a patent on that spring?

A. In the spring of 1878, when the man brought it to my place.

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Q. 22. What man do you refer to?

A. Claimed to be Timken's man, and wanted to sell the spring or the rights, I don't know which. I couldn't tell you about that.

Q. 23. Did you continue to manufacture or have manufactured for you buggies having cross springs like the Priest exhibit before you, after you learned that Mr. Timken had a patent on cross springs, and if you did, how long after that time?

Objected to for the same reasons as last above mentioned.

A. I did as long as I was in the business whenever I had an order for anything of that kind.

Q. 24. Do you know if Mr. Timken or his agent was aware of the fact that you made and sold vehicles, having these cross springs on, either before you learned of the Timken patent, or afterward?

A. I told the man when he was there at the time, that we were making that spring and would continue to make them.

CROSS-EXAMINATION BY MR. ECCLES.

X-Q. 1. How do you know you came from Denver in May or June, 1875?

A. Well, I know that was the year, I went there in March, and came back in the middle of May, 1875.

X-Q. 2. You just simply recollect it. You have nothing you could call to your mind to assist you in recollecting, have you?

A. Yes sir, I have correspondence and bills that I was looking over yesterday.

X-Q. 3. Then you base your time on bills and correspondence, and not on memory?

A. On both.

X-Q. 4. On which do you base it most, on your bills or your memory?

A. My memory is good enough, but the bills is good to strengthen my memory.

X-Q. 5. If you had bills and correspondence that showed that you left there in August, 1875, which would you rely on, your memory or your bills?

A. I haven't any August bills which showed in August.

X-Q. 6. Well, if you should find August bills and August correspondence, then which would you rely on?

A. In this case I should on, as I had stated before.

X-Q. 7. Rely on what, bills or memory?

A. Both.

X-Q. 8. Well, which would you rely on most, the bills or the memory?

A. Nothing more to say on this point.

X-Q. 9. You didn't bring these bills with you that you say you referred to?

A. Yes sir, brought them with me from Denver, not here.

X-Q. 10. Are you positive that it was in May that he made that first buggy for you?

A. Made the first springs the last of May or the first of June, 1875, I am positive, of this style of spring the same as this exhibit here.

X-Q. 11. Well, which was it, the last of May, or the first of June?

A. It would be the nearest the first of June. It might be the very last of May, but it wouldn't be later than the 5th, or 6th or 10th of June. I wouldn't be positive.

X-Q. 12. Why didn't you bring your correspondence and your bills with you?

A. Because there is no occasion, am positive without as to dates.

X-Q. 13. When did you go to Denver?

A. In March, 1875.

X-Q. 14. What did you do in Denver?

A. Sold horses, carriages, harnesses, blankets. etc., etc., at private sale and by auction.

X-Q. 15. Do you know when you started for Denver?

A. Left Chicago on or about the 20th of March.

X-Q. 16. What had you been doing before you left Chicago on or about the 20th of March?

A. In carriage and horse business. I suppose that is what you mean. I don't hardly understand your question.

X-Q. 17. Where had you been in the horse and carriage

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business?

A. On Jefferson Avenue, on the south-west corner of Beaubien.

X-Q. 18. When was that?

A. Well, I was in that building ten years, a little over, I guess.

X-Q. 18. You got Priest to make this spring because you wanted to avoid paying royalty to Brewster, didn't you?

A. I corresponded with Mr. Brewster, and found out what he claimed his patent on and told Mr. Priest that I could make a better spring and one that would not infringe on the Brewster patent, and told Mr. Priest how to make it.

X-Q. 20. That was before you started for Denver, wasn't it?

A. No sir, it was before I went to Denver in the winter. I went in the spring.

X-Q. 21. Didn't you also tell Mr. Priest that you would save paying any royalty to Brewster?

A. I don't think I did, because I don't see any occasion for any such remark.

X-Q. 22. What month in the winter of 1874 and 5, was it that you told this to Mr. Priest?

A. Couldn't say. We were talking spring all that winter, every little while, every few days.

X Q. 23. What month was it that you finally settled on this spring and gave Priest the order to make it, which culminated in the first vehicle which he made after you returned from Denver?

A. Couldn't say positive.

X-Q. 24. Where was Priest's shop when you gave him that order?

A. On Randolph street.

X-Q. 25. Did that vehicle which he made for you in the latter part of May or the first of June have side bars attached to half elliptic springs, and were those half elliptic springs set on the hind axle and the front bolster or head block as the Brewster side bars are attached?

A. I don't recollect.

X-Q. 26. When you showed Priest how to make those

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springs which he made for you in the latter part of May or the first of June, what did he say?

A. I don't recollect the conversation now.

X-Q. 27. When was that vehicle finished and put on the road?

A. It was finished in June sure, and I dont know but it was in the last of May, as I stated before.

X-Q. 28. Can you tell what has become of it?

A. No sir, but I think I saw it in Chicago when you took my testimony there in the Columbus Buggy Company case.

X-Q. 29. Was it an old buggy made over, or a new one?

A. It was a second hand buggy made over.

X-Q. 30. Whose make of buggy was it?

A. I forget the man's name, but it was made in Brooklyn. I could tell the buggy now because the seats was made with kind of a spring, or wooden spring, that sat down in the body, that went from the back to the front, and I had those springs taken off, and had risers put on so as to raise the seats and do away with the spring, that is, on the seat. It was what they call the Jagger wagon, in my opinion, but I wouldn't be sure about that.

X-Q. 31. Did it have an old-fashioned straight reach running from the hind axle straight to the front head block?

A. Couldn't say whether it had a single or a double reach. My impression is it had a double reach but I wouldn't be positive about that.

X-Q. 32. Was there any alteration made in the vehicle when you had Priest put those springs on?

A. Think not, but couldn't say positive.

X-Q. 33. Were there any alterations or changes made in the spring in that buggy, after you took it away from Priest's shop the first time?

A. Can't say. Don't recollect.

X-Q. 34. When you showed Priest how to make those springs, did he say he had ever made a spring like that before, or similar to it?

A. Not to the best of my recollection.

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X-Q. 35. In your testimony at Chicago, in the case against the Columbus Buggy Company, in answer to the question, "did he at that time (meaning the time you gave him the order to make the springs) say that he had made that spring before, or was the inventor of it," did you then answer "No sir, he could not say it"?

Question objected to as the record is the best evidence.

A. I might have said it or I might not. I don't recollect now.

X-Q. 36. If you did say it, was it true or false?

A. What was true? I don't understand your question.

X-Q. 37. Was it true that he was the inventor of it, that he had made it and was the inventor of it, and what you said, was it true or false?

Question objected to for the reason above stated, and for the further reason that it is irrelevant, as the issue here is not whether the witness or Priest is the first inventor of the spring inquired about.

A. The spring was made under my direction as near as I could give it without making it myself, and Mr. Priest never claimed to me, that he was the inventor of it.

X-Q. 38. And never claimed to you or stated that he had made one like it before that time?

Same objection.

A. No sir, don't have any recollection of any such talk.

X-Q. 39. If he had ever claimed that he had made one like it before you would recollect it, wouldn't you?

A. I think I would.

X-Q. 40. You never saw any like that around Priest's shop before he made this one for you, did you?

A. No sir.

X-Q. 41. It was considerable bother to get this one up, May or June, 1875, wasn't it, and considerable time spent on it?

A. I cannot say, as I was not at work on it.

X-Q. 42. Did you, in your deposition it Chicago in the case against the Columbus Buggy Company, in answer to the question, "how long did it take him to make this first vehicle which you say you had made in June, 1875," answer "I could

not state. It was considerable bother to get the first set up"?

Objected to as above.

A. I might have said so, but I have no recollection about it.

X Q. 43. If you did say so was it true or false?

A. I don't have any recollection of saying that. If I said it it must be so, but I don't recollect saying it.

Examination here adjourned at one o'clock standard time, until 2:15 o'clock standard time, at which hour Mr. Rolfe was continued as witness on cross examination by Mr. Eccles.

X-Q. 44. You had the first one made to experiment with, did you not, and used it for awhile to try its merits?

A. After having the first one made, I showed it to several of my customers, which ordered similar ones put on their buggies.

X-Q. 45. Did you experiment with it before you had similar ones made and put up?

A. Not for any definite time.

X Q. 46. Did you for any length of time?

A. It might have been for two hours, or it might have been for two days or so before I had another one under way after trying it.

X-Q. 47. To what extent did you try it before you ordered others made?

A. Getting into it, and jumping into it, one side and another, rocking in it, and then putting a horse to it and trying it on the road for a while.

X-Q. 48. How were the ends of those springs attached to the side bar, do you recollect?

A. Same as the Brewster, as near as I can recollect now.

X-Q. 49. Are you now prepared to say whether the side bars had half-elliptic end springs attaching them to the axle and bolster?

A. I don't recollect.

X-Q. 50. For whom did you have the next buggy made, with cross springs, or whom did you sell it to?

A. I don't recollect. I recollect having two or three made right away, or within a short time. I think I had another one changed over, for myself, but aint positive about it.

Alonzo Rolfe

X-Q. 51. Do you know when the third one was made, and to whom it was sold?

A. No.

X Q. 52. Do you know what month it was sold?

A. No. I could probably tell by referring to my bills if I had them.

X-Q. 53. Do you know when the next one was made and sold?

A. No sir. I had some made in the fall, that were not sold till the next spring, some I took to Chicago, and one or two I sold here. I don't recollect positive about these things, but I know I had them made, one of them I sold to Reardon, and one to Major Anthony, and another I think was sold to Mr. Brown of Kalamazoo. I don't know whether he lived at Kalamazoo then, he was a horseman, and then there was one that went to England, that was made in the fall of 1875, and there was another made in 1876, that went to England. I don't know whether that was finished out in 1875 or not, that went to England in 1876. My impression is that it was.

X-Q. 54. In your deposition in Chicago, don't you recollect that the buggy, called Rolfe's exhibit, in that deposition, had springs attached to the side bar, by swinging or loose shackles?

A. I don't recollect, but my impression is that the buggy I had made first had the Brewster clip.

X-Q. 55. I didn't ask you what the buggy you made first had, I asked you if the exhibit, called Rolfe's exhibit didn't have the springs attached to the side bars by loose or swinging shackles?

Objected to as immaterial, and irrelevant, it not appearing in the testimony so far taken in this case, what the thing called Rolfe's exhibit in that case if there was such a thing, represents or was intended to represent.

A. The same as the other answer.

X-Q. 56. Then you don't know whether it had swinging shackles or not?

A. Not positive, but think it did not.

X-Q. 57. Did you state in that deposition, in answer to the question, "Rolfe's exhibit shows the springs as near like

not state. It was considerable bother to get the first set up"?

Objected to as above.

A. I might have said so, but I have no recollection about it.

X Q. 43. If you did say so was it true or false?

A. I don't have any recollection of saying that. If I said it it must be so, but I don't recollect saying it.

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Objected to as immaterial, and irrelevant, it not appearing in the testimony so far taken in this case, what the thing called Rolfe's exhibit in that case if there was such a thing, represents or was intended to represent.

A. The same as the other answer.

X-Q. 56. Then you don't know whether it had swinging shackles or not?

A. Not positive, but think it did not.

X-Q. 57. Did you state in that deposition, in answer to the question, "Rolfe's exhibit shows the springs as near like

the one that you first got up in June as can be, does it not" that "I think it does."

Same objection.

A. I might have said so, but I don't recollect.

X-Q. 58. Were all the other cross springs which were made for you, or you made in 1875 and 1876, as near like the Rolfe exhibit in that deposition as could be, with regard to the cross springs and their manner of attachment to the side bars and body, were they not?

Same objection.

A. As I said in the first place, that they was hung by that, with that link, that is, if the Chicago exhibit was, but I don't think the Chicago exhibit was. I think that had the Brewster clip to the bar.

X-Q. 59. Did you have any made after the first one that was hung by the swinging or loose shackle?

A. I don't recollect, I don't think I did. I don't think I had the first one made, still I might.

X-Q. 60. What do you mean by "still we might," that you might have had it hung with a loose shackle?

A. I don't think it was, but it might have been.

X-Q. 61. Did you in that deposition, in answer to the question, "and all the balance that you had made in 1875 were as near like the Rolfe exhibit as could be with regard to the cross springs and their manner of attachment to the side bar and body were they not," say "I think they were to the best of my knowledge and recollection. There might have been some little change, but nothing to amount to anything." Did you say that in answer to that question?

Same objection.

A. I might have said so, but don't recollect.

X-Q. 62. Well, will you say you did, or did not say so?

Same objection.

A. Am not positive.

X-Q. 63. How long did you stay here, after you came back from Denver in 1875?

A. I think I stayed until about the 25th of December, when I went up to Chicago with a lot of sleighs, and stayed there till the next year.

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X-Q. 64. Then where did you go the next year?

A. I stayed and done business in Chicago, until February 1877. Had my business here and sold horses and carriages, harness same as here in Chicago. My family lived in Evanston, about twelve miles out of Chicago. My family came back here about the first of May, 1877.

X-Q. 65. Did you testify in your Chicago deposition, that you didn't know whether you returned from Denver in 1874 or 1875?

Same objection.

A. No sir. I don't recollect. I am positive now that I returned in 1875.

X-Q. 66. Did you say in answer to the question in that deposition "you did not know then. the year you left Denver until you talked it over with your wife," did you say as follows: "no, I know it was either 1874 or 1875, and when I was here yesterday I could not say." Did you make that answer?

Same objection.

A. I don't recollect any such question or answer, and will say now, I am positive I came from Denver in 1875. The answer when I was here yesterday, I don't understand, as I don't recollect testifying but one day.

X-Q. 67. Did you, in said deposition, in answer to the question "you are positive now it was 1875 because you talked it over with your wife, and not because you looked at any books," answer "yes sir."

Same objection.

A. I am not positive about that.

X-Q. 68. Will you swear you didn't?

A. I wouldn't swear that I did or did not, I am not positive.

X.Q. 69. Where did you stop when you went to Denver, give us the name of the hotel?

A. Stopped at a private house, a friend of mine, M. C. Wilbur.

X-Q. 70. Did he keep a book in which his guests registered?

A. A private house, I hardly think he did, I didn't see a register.

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X-Q. 71. Can you give me the date of the first letter you wrote to Brewster about his patent buggy spring?

A. I cannot. It must be in the fall or winter of 1874 or 1875, previous to going to Denver.

X-Q. 72. Can you tell me how many letters you wrote to them on that subject?

A. No sir, not more than two or three at the outside, I should judge.

X-Q. 73. What did you want to make a spring that wouldn't infringe the Brewster for?

A. To make money and to save paying royalty.

X-Q. 74. The Brewster side bar and piano box was becoming very popular, wasn't it?

A. The square box of piano has always been popular for gentleman's road wagon either on elliptical or patent springs, that is, as long as I have had anything to do with buggy business, I don't date back further than that.

X-Q. 75. Where did you get your side bars that you used on these buggies?

A. Some of them was made at Mr. Bushway's shop. This gentleman that is here, and I think I had some made at Wilson Brothers', and some I had made in my own shop.

X-Q. 76. Were there scrolls on the end of them, cut by hand or by machinery?

A. Those made at Mr. Bushway's shop and mine were made by hand, and I think those made at Wilson's were too. I know that we didn't have any machinery, only hand-made machines.

X Q. 77. When did you write to the Columbus Buggy Company about what you knew about this spring, and what did you write it for?

A. I don't recollect when I wrote to them aed I don't recollect now what I wrote it for. I wrote to Mr. Timken too, Columbus Buggy Company answered my letter, and the Timkens didn't.

X-Q. 78. Did you state in those letters the date that you had those first springs made?

A. I don't think I did, but I am not positive.

X-Q. 78½. Did you state in the letter to the Columbu

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Buggy Company that Priest had no right to sell this spring, that the spring belonged to you, or words to that effect?

Objected to on the ground that the letter is not produced, and the letter is the best evidence.

A. I don't recollect what I wrote to the Columbus Company, but I wrote to Mr. Timken that way.

X-Q. 79. And you don't remember where you wrote that?

A. No sir.

X-Q. 80. Was it in '82, '83 or '84?

A. I don't recollect. I think I have the Columbus Buggy Company letter, at home and that would tell me, that is their answers.

X-Q. 81. How did you come to write this to the Columbus Buggy Company that the spring belonged to you.

Objected to as immaterial.

A. I don't recollect now, I suppose I had some object in view, but what that was now, I don't recollect.

X-Q. 82. What made you write to the Columbus Buggy at all about it?

Same objection, and for the further reason that the question has been already answered.

A. The same reason as stated previous.

X-Q. 83. That is that you had a reason then, but have forgotten it now?

A. I think so.

X-Q. 84. Where was you living when you wrote that letter to them?

A. I think I was doing business in Detroit to the best of my judgment.

X-Q. 85. Is your recollection any better on that point now than it was when you gave your deposition in Chicago?

A. What is the point?

X-Q. 86. The point is about writing the letter to the Columbus Buggy Company, about where you was when you wrote it.

A. Answer the same as before. It seems to me I was in Detroit, but I wouldn't be positive about that. I might have wrote it in Chicago.

Alonzo Rolfe

X-Q. 87. Which is your best recollection, Detroit or Chicago?

A. I am not positive about that, but the Timken letter I wrote in Detroit, I am positive about that.

X-Q. 88. But you are positive that you wrote the Columbus Buggy Company letter, either in Chicago or Detroit, aint you?

A. I think so, I know that I wrote to them.

X-Q. 89. Why did you write to Mr. Timken that Priest had no right to sell this spring, that the spring belonged to you?

A. Because he had no right to. The spring belonged to me. He had no more right to sell it than Mr. Bushway. He made it under my directions, and Mr. Bushway did the same, all that he could claim is that he made the first one, under my directions, only before Bushway did.

X-Q. 90. That wouldn't give him any better right than Bushway had, would it?

A. No, only he was a little cunning and got the money. He grabbed at the first bait.

X-Q. 91. Then you, being the inventor of this spring, why didn't you get it patented, it worked fine and satisfactorily, did it not?

A. I had never taken out any patents on any of my inventions, and the wagon, for business wagon, rode very well, but for light road speeding wagon, it had too much action in the springs. I was speeding a horse in Chicago with that spring and in a three-quarter seat wagon, and it tipped down, too much motion, and threw the horse off its feet, and I got disgusted with it, for a gentleman's light road wagon.

X Q. 92. When did this occur, in '76?

A. In 1876, when I was in Chicago.

X-Q. 93. What time, do you recollect?

A. It was in the summer, I couldn't give the exact date or month.

X-Q. 94. Did you in your deposition in Chicago— question withdrawn.

X-Q. 95. Did you write to Mr. Timken that Priest had no right to sell the spring, that the spring belonged to you o

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to the Columbus Buggy Company, in order to get money out of either of them?

A. Well, I wrote to Mr. Timken to see what answer he would make to it. Because if there was any money in it I thought it belonged to me, and not to Mr. Priest, that was my version of it.

X-Q. 96. Is that what made you write to the Columbus Buggy Company?

A. I don't recollect what I wrote to the Columbus Buggy Company for.

X-Q. 97. Didn't you say in your deposition in Chicago, in answer to the question, "why did you write to the Columbus Buggy Company," that "I wrote to them that Priest had no right to sell this spring, that the spring belonged to me, I wrote to Mr. Timken the same thing." Did you, or did you not make that answer?

A. I might have made that answer, but I don't recollect.

X-Q. 98. In the same deposition, in answer to the question, "why did you write those letters to the Columbus Buggy Company, and to Mr. Timken," did you say, "because I wanted to get something out of the spring and thought it rightfully belonged to me."

A. I might have said it, but I don't recollect.

X-Q. 99. Your memory is not good as to what that deposition contains, or as to what you said in that deposition?

A. I haven't thought much about it since. I haven't charged my mind with it.

X-Q. 100. Did you state in that deposition that you wrote but one letter to the Columbus Buggy Company, and that that letter was written at Port Huron?

A. I might have, but I don't recollect.

X-Q. 101. Did you state in that deposition that the Timken letter was also written from Port Huron?

A. No sir, I did not. That letter was written in my harness room, the corner of Jefferson Avenue and Beaubien Street. I am positive about where that letter was wrote, but not about the other.

X-Q. 102. You threw up the spring and invented another didn't you?

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A. I invented another that pleased me better for a road wagon than this, but as long as I was manufacturing I made this spring to some extent. I made more of them in 1875 and 1876 than at any time later.

X-Q. 103. Didn't you say in your deposition in Chicago, that you invented your new spring in 1876. and didn't manufacture any of the other one after that, or words to that effect?

A. If I said so, it must be a mistake, because I have a wagon now that I am running, that has got that spring under it. It must have been made six or seven years ago.

X-Q. 104. When did Priest leave Randolph Street in Detroit?

A. It must have been early in the spring of 1875.

X-Q. 105. How many years have you known Priest intimately?

A. I have had dealings with Priest the last 18 or 20 years, I should think, off and on, over 20 years.

X-Q. 106. Did he do work for you when he was on Randolph Street?

A. Yes sir.

X-Q. 107. How long was he on Randolph Street?

A. I don't know. Been on there ever since I knew him, until he moved away in 1875.

RE-DIRECT-EXAMINATION BY MR. MURRAY.

Q. 1. You say that your spring did not work well, for a light speeding gentleman's road wagon, do you know how Timken's spring works for that purpose?

A. This had too much motion, and the Timken spring, the way he used to make it had full more motion than this had.

Q 2. How did he used to make it, and how does he make it now?

A. He made it with a longer bend to it, that is down light, kind of a half circle, as you might say, bend to it. It is made straighter now, which improves the looks of it a good deal, I think.

Objected to because it didn't grow out of the cross- examination.

ALONZO ROLFE.

Joseph C. Bushway.

Adjournment was here taken at five o'clock, standard time until nine o'clock in the forenoon of the 19th of March, 1887, at which time Mr. Joseph Bushway, after being duly sworn, testified as follows in behalf of the defendant:

Q. 1. State your name, age, residence and occupation.

A. Joseph Bushway. Age, fifty-five years. Residence, in Detroit. Occupation, blacksmith trade.

Q. 2. How long have you been engaged at your present occupation in Detroit?

A. About thirty years now, yes, thirty-five years.

Q. 3. Are you acquainted with Mr. Olin, here present?

A. I am acquainted now since I saw him last. It ain't very long ago.

Q. 4. How did you come to meet Mr. Olin?

A. Mr. Olin came to my shop last week or week before last.

Q. 5. For what purpose?

A. On account of his spring.

Q. 6. Please state what kind of a spring it was he came about, and state what he said to you about it?

A, Well, I used to call it the Timken spring; he wanted to know if I made any such spring; I told him yes, I made a few for Mr. Rolfe, then he wanted to know how I made the spring, how I put them together, then I told him that I don't exactly recollect how I did put them together, and Mr. Olin ask me if I could make a spring of that kind. I told him yes. I told him I would think it over, and I thought I could come to it again. Then he come in again the next day and he told me to make him one, so I made it and sent it.

Q. 7. Please examine the pair of springs now before you and state if you recognize them, as the ones you made at the request of Mr. Olin?

A. Yes sir.

The springs referred to are offered in evidence, and the officer will please mark the same Defendants' Exhibit, Bushway's springs.

Q. 8. Please state how these springs which you made for Mr. Olin, correspond with or differ from the springs which you say you made for Mr. Rolfe?

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A. They are the same springs.

Q. 9. When did you first make springs of this kind for M. Alonzo Rolfe?

A. In 1875.

Q. 10. State the month in 1875 that you made such springs, as nearly as you can?

A. I couldn't tell exactly, but it was either in August or September.

Q. 11. Had you known of any springs of that kind having been made by any one else prior to the time you made the first springs for Mr. Rolfe?

A. Yes sir.

Q. 12. By whom were they made, and for whom?

A. They were made by Mr. Joe Priest. I couldn't tell for whom they were made, but as far as I could understand they were made for Mr. Rolfe.

Q. 13. To what use, if you know, did Mr. Rolfe put these springs?

A. On the light road wagon.

Q. 14. When did you first see the springs first used on the light road wagon?

A. In 1875.

Q. 15. Was that before or after you had made your first set of springs for Mr. Rolfe, that you saw these springs used on a wagon?

A. It was before I made them.

CROSS-EXAMINATION BY MR. ECCLES, ATTORNEY FOR THE COMPLAINANT.

X-Q. 1. Did you attach these springs that you made for Rolfe, to the vehicle, or did somebody else?

A. I don't understand that.

X-Q. 2. Who attached these springs to the vehicle?

A. I did, sir.

X-Q. 3. How does it come that you understand this question and didn't understand the other one?

A. Because it comes a little more proper to me.

X-Q. 4. In what particular does it come more proper to you?

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Question objected to as immaterial, and only an attempt to confuse the witness.

A. Because you ask me who put this thing together me or somebody else.

X-Q. 5. How many springs did you make for Mr. Rolfe?

A. I made two or three buggies for him.

X-Q, 6. Well, which was it, two or three?

A. I couldn't remember exactly about it.

X-Q. 7. Were they new, or were they old buggies fixed over?

A. They were new buggies.

X-Q. 8. Did they have an end spring on top of the axle connecting the side bars to the axle and also an end spring on top of the head block or bolster connecting the side bars to the bolster?

A. Yes sir.

X-Q. 9. Did they have a straight pole or reach running from the hind axle straight to the bolster or head block?

A. Yes sir.

X-Q. 10. Were all of these vehicles light, three-quarter seated road wagons, or were they double seated road wagons?

A. All single.

X-Q. 11. What was the distance between the side bars?

A. About 26 inches.

X-Q. 12. How did you come to make this a thirty inch spring?

A. I don't know as I made a 30 inch.

X-Q. 13. How long is it?

A. I don't remember any more.

X-Q. 14. What was the shape of the spring bar on those springs you made for Rolfe?

A. Well, they were the same shape as we make them now a days, a scroll on each end.

X-Q. 15. I don't mean the side bars, I mean the spring bars, the bar the springs are attached to under the body.

A. That spring bar was let in under the body, which the bottom came even with, the bar on the inside of it.

X-Q. 16. What was its shape on the bottom or lower

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side, was it straight?

A. No sir, it was slanted off from the center, and cut down the same thickness as the bottom on the edge.

X-Q. 17. When Mr. Olin first spoke to you about this spring you say you didn't remember how it was made, and you didn't remember when it was made either, did you, at that time?

A. No sir.

X-Q. 18. When did you first find out after that that it was made in August or September 1875?

A. I come to it by speaking to one of my sons about it. Then I ask him if he didn't remember anything about that spring, and he said yes. Afterwards I told him that I think the spring was made in just that way was it I says, says I, there was two plates underneath the spring, then he says there was a bolt through, connecting the two springs together, then I says, says I, do you remember about what time we made those springs for Mr. Rolfe, he said it was during in the fall, sometime early in the fall. Then I says, says I, it must be in either August or September, that we made those springs, then he said he thought it was somewhere along there.

X-Q. 19. If he had said there was no bolt there you would have constructed the spring without a bolt, wouldn't you?

A. No sir, he gave me the answer before I spoke.

X-Q. 20. Suppose that he had told you that there was no bolt there, you would then have constructed the springs without a bolt, wouldn't you?

Objected to as a repetition and fully answered before

A. No sir, I knew there was a bolt there all the time.

X-Q. 21. What did you ask him for if you knew how to construct the springs?

A. I wanted to know if he remembered yet.

X-Q. 22. Did you know then exactly how they were made?

A. Yes sir.

X-Q. 23. When did you first find out exactly how they were made or recall it to memory, after Olin was talking to you?

Jos. C. Bushway

A. After Mr. Olin went away from my shop, I took and made me a sample right off, then I says that is the spring.

X-Q. 24. You had no doubt about it then?

A. No sir.

X.Q. 25. You talked to your son about it just for fun?

A. Just to see what he would say about it.

X Q. 26. When did you first find out it was in the year 1875? Was it when you heard Rolfe testify to it yesterday?

A. No sir.

X-Q. 27. When was it?

A. In 1875.

X-Q. 28. I asked when you first found out, or first recollected after Olin was talking to you, that the time was 1875, that you made that spring?

A. By looking over my book, I look as far as 1874, and didn't find no spring there, come to '75, that is before July till '76, couldn't find no spring. Come to look over the book particularly, I found ten pages off from the book, so of course on one of those leaves that was out, Mr. Rolfe's account was out it and was lost.

X-Q. 29. How do you know it was?

A. Well, because I know it was. Mr. Rolfe was on that page.

X-Q. 30. Well, how do you know it was on that page, did you see it?

A. Because I used to keep Mr. Rolfe's account on my book from leaf to leaf until we quit trading together.

X-Q. 31. Who tore those leaves out?

A. I couldn't tell you exactly. I suppose it must have been the young ones.

X-Q. 32. How did the young ones just happen to tear out Rolfe's account and nobody's else?

A. I don't know anything about it. I suppose it must have been because there was more on that book for Mr. Rolfe than anybody else.

X-Q. 33. About how many years did you and Rolfe do business together?

A. I couldn't exactly tell, about 9 or 10 years I suppose, it may be more or less.

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X-Q. 34. Do you recollect how much he paid you for these buggies?

A. No sir, not exactly.

X-Q. 35. Did he pay you cash for them or trade?

A. Paid me in cash sir.

X-Q. 36. Can you tell me about how much he paid you for the first buggy he put up?

A. I think he paid me ninety dollars for the first buggy I put up for him, that is, unfinished, that was the wood work and the iron work.

X-Q. 37. Then you would make the charge on the book for wood work and iron work on one side bar buggy, $90, wouldn't you?

A. Yes sir.

X-Q. 38. You wouldn't, in the charge, say anything about the springs?

A. No sir, only just merely side bar spring buggy.

X-Q. 39. Did you ever put up any Brewster springs for Rolfe?

A. Yes sir.

X Q. 40. What charge would you make for those, for one side bar spring buggy?

A. Just the same.

X-Q. 41. Did you make these buggies for Rolfe before or after the Centennial?

A. I don't remember no more about the Centennial, what year it was.

X-Q. 42. Centennial was in '66, wasn't it?

A. I don't remember anything about it.

X-Q. 43. Do you remember when the war closed?

A. No sir.

X-Q. 44. Was it '66 or '67?

A. I don't know.

X-Q. 45. What other event happened in your family in 1875 besides making these springs, do you remember?

A. No sir.

X-Q. 46. Do you remember any particular event that happened in 1876?

A. No sir.

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X-Q. 47. What year is this?

A. '87.

X-Q. 48. Where was your shop in 1878?

A. On the corner of State and Park Place.

X-Q. 49. How long has it been there?

A. Ten years.

X-Q. 50. When did you move there?

A. In March, 1870.

X-Q. 51. You heard Rolfe testify yesterday that he came from Denver in 1877; ain't that what makes you think it was '77 that you made those springs?

A. No sir.

X-Q. 52. Well, what is it that makes you think it was '77? Let's hear anything besides the book.

Question objected to because it is an unfair attempt to mislead and confuse the witness, and a palpable misrepresentation of the witness' former testimony.

A. Seventy-seven, did he say, seventy-seven, the making those springs. I didn't make any springs of that kind in 1877, it was 1875.

X-Q. 53. Well, tell me the reason that makes you think it was 1875?

Question is objected to because it has been fully answered.

A. Because I had it on my book like that.

X-Q. 54. Was all Rolfe's account torn out?

A. No sir.

X-Q. 55. What was the date of the first entry after the leaves were torn out?

A. I didn't take any notice of that. I couldn't tell you anything about that.

X-Q. 56. Have you got that book?

A. Yes sir.

X-Q. 57. Will you bring it here and let me see it after dinner?

A. No sir, can't do it to-day. I can bring it Monday.

X-Q. 58. Why can't you bring it to-day?

A. I don't live in town. I don't go home until night, and the book is at home.

Jos. Bushway

X-Q. 59. Where do you live?

A. I live on the other side of the toll gate, on Woodward Avenue.

X-Q. 60. That is beyond Grosse Pointe, isn't it?

A. It must be.

X-Q. 61. How far is it from here?

A. I couldn't exactly say. The neighbors around there think it is about three and one half miles from the city hall.

X-Q. 62. Can you tell the year that your eldest son was born?

A. In 1853.

X-Q. 63. Suppose Mr. Rolfe had testified that you made those springs in 1876, you would then think that you did make them in '76, wouldn't you?

A. No sir.

X-Q. 64. And you think that simply because Rolfe's account is lost out of that book?

Question objected to because it misrepresents the witness' testimony.

A. Yes sir.

X-Q. 65. How do you know but Rolfe's account that is torn out run away into '76?

A. Because from '74 to '76 there is nothing between in Mr. Rolfe's account.

X-Q. 66. Didn't you say a little bit ago that you didn't know the date of the next entry after the leaves were torn out in that book?

A. I said I didn't know the date, because I couldn't tell anything about the book, but I thought it was in August or September.

X Q. 67. Well, now what is the first date in that book after the leaves are torn out, if you know?

A. I couldn't tell you anything about it. I didn't take notice of that.

X Q. 68. You heard Rolfe testify yesterday, that he came from Denver the latter part of May or the first of June, 1875, didn't you?

A. I didn't take no attention to that, sir.

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X Q. 69. Please answer my question. Did you hear him so testify, or not?

A. I didn't take no attention to what he did say.

X-Q. 70. Do you mean to say that you sat here all day yesterday, and that you paid no attention to what Mr. Rolfe said?

Question is objected to because it is not a fact that the witness sat here all day yesterday. The fact is that the witness was not sent for until three o'clock or half past three, complainant's counsel having stated at the noon adjournment that he had but a few questions to ask Mr. Rolfe. The witness was therefore notified to be present at three o'clock, but was not here at that hour, and was detained here by complainant's counsel himself, he stating repeatedly that each question would be his last.

Complainant's counsel states that the foregoing is Mr. Murray's statement, and not that of said counsel.

A. Yes sir, the little time I stayed here yesterday afternoon, I didn't pay no attention to what Mr. Rolfe said.

X-Q. 71. And didn't hear any fact that he stated in his deposition?

A. Only that when Mr. Rolfe said that Mr. Priest had no more right to sell the springs than I had, that is all that I heard.

X-Q. 72. Did you have a spring press to make those springs with?

A. No sir.

X-Q. 73. Were the ends of the leaves held together in any manner, that is, was the end of the top leaf fastened in any manner to the lower leaf in those springs?

A. There were only little bits of ears each side of the springs, to keep the springs from shifting apart.

X Q. 74. How can you remember so minutely that there were ears to keep them from shifting apart, when you couldn't remember how they were constructed, when Olin first spoke to you?

Question is objected to as misleading, it not appearing whether the springs inquired about in this and the preceding question are the ones introduced here as an exhibit or the

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first ones made by the witness for Mr. Rolfe.

A. Because I made them myself.

X Q. 75. That all the reason?

A. The reason why I made them that way is to save time in the making of it, because them that is attached together by teats and slot holes takes more time to make.

X Q. 76. Then you did remember when Mr. Olin first spoke to you about it that they were made with ears and not with teats and slot holes?

Objected to as a misrepresentation of witness' testimony.

A. Yes sir, after he spoke to me the second time about the springs.

X Q. 77. When he spoke to you the first time about the springs, did you remember they were made with ears and not with teats and slot holes?

A. Yes sir, always did.

X Q. 78. When he spoke to you the first time, did you remember how the ends of the springs were connected to the end of the spring bar?

A. Yes sir.

X.Q. 79. When he spoke to you the first time, did you remember how the springs were connected to the spring bar at the center?

A. No sir, not right off at once.

X Q. 81. How soon was it that you remembered it?

A. Right away after Mr Olin started from the shop. Mr. Olin came in the next day and inquired about the springs, then I knew all about it.

X.Q. 82. When did you have your conversation with your son?

A. The same day that Mr. Olin came to shop, the first time that night.

X Q. 83. Did Mr. Olin show you any springs?

A. Not any, but only he gave me a catalogue where his patent right springs is onto it, his design.

X Q. 84. Are you a customer of Mr. Olin's?

A. No sir.

X Q. 85. How much did he give you for making these springs?

Jos Bushway

A. Five dollars.

X-Q. 86. Did you tell the Columbus Buggy Company what you knew about this spring?

A. No sir.

X Q. 87. Did you testify in that case before in relation to the spring, the case of Timken vs. the Columbus Buggy Company?

A. No sir, not as I can recollect.

X Q. 88. Well, don't you know whether you did or not?

A. The only thing I can remember was an agent was in my shop last summer, and he had a spring at that time. I looked at it, I told him there was a mam here that made those springs, and I made some too, and that was all, only I don't remember about the name of it, about the name of the firms.

X Q. 89. That spring was just like the one you made for Rolfe wasn't it?

A. Yes sir.

A recess was here taken at 12:30 o'clock until 3 o'clock when Mr. Eccles, complainant's attorney continued the cross-examination of Joseph Bushway.

X-Q. 90. Who else did you make buggies for in 1875 besides Rolfe?

A. I don't remember any body else but Mr. Rolfe, that I made that kind of spring.

X-Q. 91. Do you remember anybody else that you sold any buggy to in 1875, or made any buggy for?

A. Oh, yes, I remember several parties that I sold them to.

X-Q. 92. In 1875?

A. In 1875.

X-Q. 93. What were their names, and where do they live?

A. Well, that I couldn't remember their names. Some of them used to live out in the country, and some of them over in Canada.

X-Q. 94. Can you give me the name of a single man, that you sold a buggy to, in 1875, besides the one you sold to Rolfe?

Jos. Buchway

A. No sir, I couldn't give any names just now.

X-Q. 95. When Olin came to you, you said in your direct examination he want to know how you coupled the springs and how you put them together, did you then look at any buggy or spring, or did he explain to you anything about the coupling of the spring?

A. No sir.

X Q. 96. Are you a native of this country, or are you a foreign born person?

A. I don't exactly understand that, was I born here in Detroit, did you say?

X Q. 97. I asked if you were a native born citizen, or if you were born in a foreign country?

A. No sir, I was born in Canada.

X-Q. 98. How old was you when you was married?

A. I was 21, a little past.

X-Q. 99 Your memory is not very good is it?

A. No sir, not as good as so many years ago.

X-Q. 100. When did you first discover your memory failing?

A. From this last 7 or 8 years.

X Q. 101. Can you tell what month it was that you first saw Priest make these springs in 1875?

A. No sir, I don't remember seeing Mr. Priest make any of these springs at all.

X-Q. 102. How close was your shop to his in 1875?

A. It was pretty far away. I was on State Street, and he was back on Jefferson Avenue, corner of Beaubien.

X-Q. 103. How long have you known Priest?

A. I knowed him now 36 years.

X-Q. 104. Do you remember the oath that the Notary administered to you at the beginning of your deposition?

A. I think I was about 11 years old at that time, 10 or 11.

X-Q. 105. Do you remember the oath that the Notary administered to you at the beginning of this deposition?

A. You will have to tell me that some kind of a way that I can understand better.

X-Q. 106. Do you recollect what the Notary said to you

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when you held up your right hand at the beginning of this deposition?

A. He told me to swear to the truth and nothing but the truth.

X-Q. 107. Is that all he told you?

A. That is all I can remember.

JOSEPH BUSHWAY.

SAMUEL G. RAND was then sworn in behalf of the Respondents, and testified as follows: Direct examination by Mr. Murray, defendants' attorney.

Q. 1. State your name, age, residence and occupation.

Complainant's counsel objects to the witness being sworn or testifying in this case, on the ground that his name is not set up in the answer or the amended answer.

A. Samuel Gibson Rand. Sixty one on the 15th day of next April. 215 Howard Street, Detroit. Salesman.

Q. 2. Are you acquainted with Alonzo Rolfe, who was formerly a dealer in carriages, horses, etc., on Jefferson Avenue near Beaubien street in the city of Detroit, and if your answer be yea, please state how long and how intimately you have known him.

A. Yes. I have known him ever since 1854, intimately until the last 6 or 7 years, yes, five years, I guess it was. I have seen him once or twice since then.

Q. 3. Did you have any business relations with Mr. Rolfe during the time his business was on Jefferson Avenue, near Beaubien in this city?

A. Yes sir, I worked for him.

Q. 4. During what time were you working for Mr. Rolfe?

A. From 69 till 77 or 78. 77, about 77.

Q. 5. During the time you were working for Mr. Rolfe do you know of his having made himself, or having had made for him any side bar vehicles having cross springs connecting the body and side bars?

A. Yes sir.

Q. 6. Please state when you first had such knowledge, and state if you know who made the vehicles referred to in the

Samuel G. Raud

former question, or the springs which were used on such vehicles?

A. Well, these springs were made at the time at Joram Priest had his shop in the Campbell house, adjoining this repository of ours, and were manufactured by Mr. Priest.

Q. 7. When was the first of these springs manufactured by Mr. Priest?

A. I can't give you the date, the year.

Q. 8. Give me as near as you can?

A. I think the first spring Mr. Priest made was manufactured previous to his coming there to the Campbell house, and that one didn't give Rolfe satisfaction. The next one was made soon after he came into the house, and was fastened to the body of the buggy, with a different clip or fastener. Do you want me to explain these two fasteners?

Q. 8. Yes sir. Please explain them. State just how the springs were fastened to the body and to the side bars.

A. The first spring was fastened to the outer edge of the box of the buggy, and extended clear across the buggy and fastened to the side springs at the side, and the other came to the center, and was fastened, came to the outer edge and then to the center, and extended on to the side bar. It had two fasteners.

Q. 9. You have stated off of your record that you desire to correct your former answer, as to the time that you worked for Mr. Rolfe. Make such correction as you desire.

A. Well, I went to work for him December, '69, and worked for him 7 years.

Q. 10. What, if you know, became of the buggy having the cross springs on that you mentioned?

A. Priest made several of these cross springs for Rolfe. One was shipped to England, I remember particularly, and he put these springs on to an old buggy for Tom Venn, and I think one of the buggies was sold to Dr. Drake. I don't know as I can remember where the rest of them went to.

Q. 11. What time was the buggy shipped to England?

A. I can't give the year. I know I had it boxed and ready to ship when Rolfe returned from Denver.

Q. 12. How long was it as near as you can recollect, be-

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fore you quit the employ of Mr. Rolfe that these buggies were made?

A. I can't give you that. I can only give you the dates I have mentioned as landmarks.

Q. 13. Can you give the time of the year, whether spring, summer or fall?

A. No, I can't positively.

Q. 14. What dates do you refer to as landmarks?

A. Well, the buggies that was made with the springs fastened to the center was manufactured soon after Priest came into the Campbell house. Priest was not there long, I couldn't tell you the year.

Q. 15. Well, and the springs that were not fastened to the center, when were those manufactured?

A. They were manufactured by Priest, so I understood.

Q. 16. The question was when they were manufactured?

A. I can't answer the question.

Q. 17. What time were they manufactured in reference to the time Mr. Rolfe went to and returned from Denver?

A. Well this set of springs manufactured for England were made before he went. The buggy was finished while he was gone.

Q. 18. What were your duties while you were engaged with Mr. Rolfe? That is, what position did you hold?

A. I was salesman, bookkeeper and manager during his absence.

Q. 19. Please examine the springs now before you, and marked, "Defendants' Priest's springs No 2," and explain with reference to these springs how the second set of springs which you say Mr. Priest made were connected at the center, and in giving your answer, refer to the different parts by name, instead of pointing to them, so that the court will be able to understand your answer fully.

Objected to as the exhibit before the witness suggests the answer.

Complainant's counsel objects to the witness looking to a pencil sketch which he holds in his hands. because it does not appear that the pencil sketch was made by the witness, and because the same has not been offered in evidence.

Samuel G. Rand

A. Priest second spring was fastened at the edge, and in the center and to the side bars.

Q. 20. State who made the sketch you were looking at after the last question was asked you, and please take a sheet of paper, which I now hand you, and a pencil, and make a sketch, illustrating as well as you can, the manner in which the Priest springs inquired about were attached as you stated, and hand the same to the officer, to be attached to your depo sition?

A. I made this sketch here. Small "a" is where the springs are fastened in the center. "b" "b" is where they are fastened to the buggy box, and "c" "c" is where they are fastened to the spring box. I don't think Priest made two springs alike while he was working at home.

The sketch handed in by the witness is offered in evidence and the officer please mark the same Defendants' Exhibit. Rand's sketch, and please sign the same.

Q. 21. Do you know of any one else besides Mr. Priest that made side bar vehicles, with cross springs for Mr. Rolfe while you were working for him?

A. Yes.

Q. 22. Who was it?

A. Joseph Bushway made some for him.

Q. 23. How many did Joseph make and when did he make them? Was it before or after Mr. Priest made his springs?

A. Subsequent to Mr. Priest. Bushway didn't make many springs. He didn't give satisfaction.

Q. 24. How long subsequent to Priest was it that Bushway made his springs for Mr. Rolfe?

A. My impression was it was about a year.

Q. 25. Do you know what induced Mr. Rolfe to get up or make this character of cross springs for side bar buggies?

Objected to, as it called for a conclusion and not for facts.

A. I think I do.

Q. 26. Please state what, if you know, was the inducement. State all you know about it?

A. Priest is a sort of an inventive genius, and Rolfe said to him one day in my presence, "I want you to get up a

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spring that will be as soft riding as the Brewster," and from that conversation that was the result of it. Priest went to work and manufactured the first spring I spoke of. This spring was bolted to the buggy, solid to the side, it was fastened to the side, I won't say it was bolted solid. It was fastened to the side and extended over to the side bar. Rolfe objected to this spring, it had too much of a rolling motion, and then Priest made the second spring, the spring that fastened in the center, which obviated the rolling motion.

This ended direct examination.

CROSS-EXAMINATION BY MR. ECCLES.

X-Q. 1. You didn't examine this first spring carefully, to see whether it was attached to any other place on the body, except to the outer side, did you?

A. Yes I examined it. Those were the only fastenings.

X-Q. 2. You don't know whether it was fastened with a bolt to the body, or how it was fastened?

A. I can't say.

X-Q. 3. Do you know how it was fastened to the side bar?

A. It was fastened with a sort of a loop, something like that. A clip on the spring bar, and a ring or a loop there.

Complainant offers a sketch made by the witness, and asks the officer to mark it, Complainant's Rand's sketch No. 2.

X Q. 5. What was done with that spring when it didn't please Rolfe?

A. It was taken off the buggy. I can't say what was done with the spring.

X Q. 6. Priest was constantly experimenting with springs from the time he made this first one, until he left the Jefferson Avenue shop, wasn't he?

A. Yes.

X-Q. 7. And Rolfe got dissatisfied with his springs, and got Jo. Bushway to make springs for him, didn't he?

A. Not that way. Rolfe as I understood it, thought Priest was too expensive, and instructed Bushway to make springs like Priest's which he never could do. Never gave the same satisfaction.

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306–320 And afterwards, to wit, on the 18th day of April, A. D. 1887, the following deposition of Alonzo Rolf was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN, vs. T. D. OLIN ET AL } In Equity, No. 3853.

The complainant in above cause will take notice that Respondents will examine Alonzo Rolfe of Chicago, Illinois, and perhaps others, before Chas. A. Rogers, Notary Public, No. 940 West Madison Street, Chicago, Illinois, beginning at nine o'clock in the morning of Saturday, April 9th, and continuing from day to day, until completed.

GEO. J. MURRAY,
Solicitor for Respondents.

Received copy this 6th day of April, 1887.

WM. HUBBELL FISHER,
Of Solicitors for Complainant.

STATE OF ILLINOIS } ss.
COUNTY OF COOK, }

In compliance with the annexed commission or agreement dated April 6th, 1887, by Geo. J. Murray, Solicitor for Respondents. and Wm. Hubbell Fisher. Solicitor for Complainant, in the case of Henry Timken vs. T. D. Olin, et al, (in equity, No. 3853.) Circuit Court of the United States. Southern District of Ohio, Western Division.

I, Charles A. Rogers, No. 940 West Madison Street, Chicago, Illinois, Notary Public in and for County and State aforesaid. On this 9th day of April, A. D., 1887, at 2 p. m., personally came before me, Alonzo Rolfe, who being sworn according to law, makes the following answers to the interrogatories propounded to him.

Q. 1. By Notary. Mr. Rolfe, what is your name, place of residence, and age?

A. Alonzo Rolfe, age 53 years, residence 991 Monroe St., Chicago, Illinois.

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Q. 2. By T. D. Olin. Are you the same Alonzo Rolfe who has heretofore testified in this case?

A. Yes sir. I am.

Q. 3. State if, since giving your former deposition at Detroit you have made search for books or memorandum which relates to the manufactory and sale by you of side bar vehicles having cross springs, such as respondents' exhibits, Priest's springs, about which you then testified, and if you have, state if you have found such books or memoranda.

A. Yes, I have.

Q. 4. Can you produce them to-day?

A. It would not be convenient to do so to-day, as I am very busy.

The further taking of evidence was adjourned at this point until 10 a. m., Monday, April 11.

Monday, April 11, 1887, in pursuance of the adjournment until this time, the examination continues. Present, G. J. Murray, on behalf of the defendants, and Wm. M. Eccles in behalf of the complainant.

Q. 5. By G. J. Murray. Please state if you have books or memoranda which will enable you to fix the dates in relation to the time when you sold the side bar vehicle having cross springs, which you said in your former deposition was shipped to England?

Plaintiff's counsel objects to the witness testifying in relation to the vehicle which went to England or the time of sending the same, for the reason that the subject matter was fully gone into in witness' direct examination in his former deposition in this case, and also objects to the witness testifying to any matters in dispute in this case for the reason that he has fully testified in his deposition heretofore taken by the defendants at the city of Detroit.

A. Yes sir.

Q. 6. State what books and memoranda you have.

A. I have a painter's bill that shows that the buggy that went to England was painted in the fall and winter of 1874. I have also the shipping bill, showing that the buggy was shipped from Detroit, consigned to Lady Prescott. Strand Park, Herring Bay, Kent, England. Also have the bill of

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lading of April 8th, 1875, showing that the buggy was shipped on the White Cross Line of Steamers, on Steamer C. F. French from New York, April 10th to Lady Prescott, Strand Park, Herring Bay, Kent, England, also have a letter dated June 10th, 1875, at Isenhurst, Hawkhurst, Sussex, England, acknowledging receipt of buggy, mailed at Hawkhurst, June 11th, 1875. Also have an order of another side bar with Sir Geo. Prescott to be shipped to Isenhurst, Buxted Station, England, and Brighton Line, England. This letter was written at Lawrence, Kansas. Has no date, but was written in the fall of 1875.

The documents referred to by the witness in his last answer are herewith offered in evidence, and the officer will please mark the same respectively, Defendant's exhibits.

(Painting bill, Dec. 31st, 1874.)

(Bill of lading, No. 1.)

(Shipping bills, No. 2 and 3.)

(C. W. Prescott's letter of June 10th, 1875.)

(Envelope of June 10th, 1875, letter.)

(C. W. Prescott's Lawrence letter.)

The introduction of the envelope, the defendant's exhibit envelope of June letter, June 10th 1875, objected to as irrevelant and not having been identified.

Q. 7. Please examine Defendant's exhibits envelope of June 10th, 1875, and state what it is. When received by you, and what it covered.

A. Received at Detroit June 26th, 1875, that's the post mark on it. Received by Carrier June 26th, 1875 at Detroit. It covered the letter dated June 10th, 1875, written at Isen hurst, Hawkhurst, England.

Q. 8. Please state what book it is you are now examining.

A. Invoice of carriages, buggies and sleighs on hand January 1st, 1875.

Q. 9. Please state if there are any entries in that book which refers to side bar buggies having cross springs, such as the Priest spring as you referred to in your Detroit deposition.

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Objected to as leading and because the book is the best evidence of what it contains.

A. Yes sir.

Q. 10. Please quote the entries you refer to and give the page of the book.

A. On page 118, one side bar top sold to Sir Geo. Prescott, marked here as being sold 8th month and 13th day, 1875, also top side bars, J. Priest, October 23rd 1875, sold to Dr. Drake. No. 170, Priest spring side bar on hand, January 1st, 1875. Several other side bars on hand, but can't identify them as having Priest springs.

Q. 11. After having examined the book and the exhibits here introduced, are you able to state when the buggies referred to in your last answer as having the Priest springs on them were made or commenced?

Objected for the reason that the proper foundation has not been laid for the question.

A. In 1874.

Q. 12. Give the time in 1874, as near as you can when such buggies were made or commenced.

Same objection.

A. As near as I can judge in September or October, 1874.

CROSS EXAMINATION.

The Complainant's attorney objects to all testimony in relation to the book, for the reason that the book is the best evidence of what it contains, and for the further reason that the book was in the hands of the witness while he was testifying in relation to what it contains.

Defendants' counsel states that the entries from the book referred to by the witness may be copied by the Notary as a part of the witness' deposition, and if the witness will permit it, the book will be produced at the hearing for inspection, but as the book was only used to refresh the witness' memory it would be needless to incumber the records by offering it in evidence, as the whole of it, with the exceptions referred to, is irrevelant to the issue in this case. The book is tendered to opposite counsel for the purpose of cross-examination on the points enquired about.

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Plaintiff's counsel gives notice unless the book referred to be introduced in evidence and is present at hearing of cause, he will insist on his objection to any and all evidence in relation to the same.

X-Q. 13. Is this book all in your handwriting?

A. No sir.

X-Q. 14. What part of it is in your handwriting?

A. I don't see any of it in my hand as far as the invoice of carriages and sleighs, etc.

X-Q. 15. What part of the book is in your handwriting, if any?

A. I don't see any.

X-Q. 16. In whose handwriting is the book?

A. Three different hands. S. G. Rand, of Detroit, and two other book keepers, whose names I do not remember.

X-Q. 17. How much of this book do you find in the hand of S. G. Rand?

A. All of the part relating to the side bar buggies shipped to Sir Geo. Prescott, England, and Dr. Drake, of Detroit, and Priest spring side bar, and all of the writing on pages 116 and 118 is in the hand of S. G. Rand.

X-Q. 18. Is there any writing in this book in the handwriting of Rand, except what appears on pages No. 116 and 118?

A. Yes.

X-Q. 19. Where else has he written in that book?

Question withdrawn.

X-Q. 20. In whose handwriting is pages 110, 111 and 112?

A. As far as the invoice goes it was in the hands of a man who called himself Frank Wilson under an assumed name.

X-Q. 21. In whose handwriting is pages 102, 103 and 104, as far as the invoice is concerned?

A. The same as the former as near as I can judge.

X Q. 22. When did Frank Wilson leave your employ?

A. In the winter of 1875. In January or February. The last of January or sometime in February.

X-Q. 23. He was your book keeper up to the time he left?

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A. Yes sir.

X-Q. 24. When you took this inventory you numbered your carriages from one to ninety one, did you not?

A. That is the way they appear to be numbered.

X-Q. 25. That appears on pages 102, 103, 104, 105, 106, and 107. Page 102 commencing with No. 1 and titled, carriages on hand January 1st, 1875, and ending with No. 91 on page 106, does it not?

A. I take that to be only a partial list that I had on hand at that time, as I had buggies at Priest's Bushway's, Clifford's, and other paint shops.

X-Q. 26. Will you look at pages 108 and 109, and tell me what is at the top of page 108, and what at the top of page 109?

A. On page 108, carriages on hand, on top of 109, January 1st, 1875.

X-Q. 27. How do you know that is January 1st, 1875, on top of page 109?

A. It might be called June, but it was intended for January, as the inventory was taken of carriages and sleighs January 1st and the man that wrote it was not working as late as June. I think he left before I got back from Denver, which was the last of May or the first of June.

X-Q. 28. Is that all the reason you think it was January?

A. I don't think of any other reason.

X-Q. 29. Will you look on page 102, at No. 4, and tell me if the word sold was written there at the time that inventory was written there, or afterwards, if you know?

A. I could not state positively.

X-Q. 30. Have you any recollection about it?

A. It might have been sold at the time it was put down, or a few days after, as there is no date there.

X-Q. 31. You was in Chicago when this inventory was taken was you not?

A. I can't say.

X-Q. 32. You look at No. 12. Tell us when that word was written there, sold, on page 102?

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A. I can only answer the same as the previous question, as there is no date to fix it.

X-Q. 33. Look at the words sold before Nos. 29, 30 and 34, of page 102, and tell us about them.

A. Can't fix any date when they were sold. No. 12 should be marked as sold March 12.

X Q. 34. Look at the words sold opposite 39, 40, 50, 54, 63, and 66, and tell us about them, on page 104

A. 66 was sold April 27, 1875, as appears on the book, the others there no dates, as affects the time they were sold.

X-Q. 35. Was not No. 40 on page 104 sold March 9th, 1875?

A. I think it was by the marks here. I did not see that when looking them over.

X-Q. 36 Look at the words sold opposite Nos. 79, 80 and 82, on page 106, and tell us about them.

A. 79. Open three-spring phæton, sold to C. D. Hurd, Montana. 80, sold to Wm. D. Brown, April 10th, 1875. 82, sold Rev. L. P. Mercer, no date of sale. 86, open phæton, sold Mary and Frankie Wood, May 3d, 1875.

X-Q. 37. Now look on page 108, and tell if No. 4 is not omitted on that column?

A. It is.

X-Q. 38. Look on the same page, and tell us whether No. 12, 29, 30 and 34 are not each omitted on that column?

A. Yes they are.

X-Q. 39. Look on same page, 108, and tell us whether No. 39, 40, 50 and 54 are not omitted on that column?

A. Yes sir.

X-Q. 40. Look on the same page and tell us if that page does not commence with No. 1 and end with No. 58?

A. It does.

X-Q. 41. Look on page 109 and tell us whether No. 66, 79, 80 and 82, is not omitted on that page?

A. Yes sir.

X-Q. 42. Look on page 109, and tell us if it does not commence with 59 and end with 108?

A. It does.

X-Q. 43. Now, Mr. Rolfe, according to that, pages 108 and

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109 must have been written after the dates of sales on pages 102, 103, and 104, 105, 106 107. must they not?

A. That's the way it looks.

X-Q. 44. Now, Mr. Rolfe, the entries on page 116, you say is a continuation of page 109, consequently the entries on page 116 must have been written after the entries on page 109, must they not?

A. I think they were.

X-Q. 45. Look at page 116, and tell if the first entry is not a 109, and the last entry is not a 145?

A. It is.

X-Q. 46. I understand you to say that you did not see any of these entries made, to the best of your recollection?

A. I did.

X-Q. 47. What entries did you see made?

A. I don't recollect seeing any made.

X-Q. 48. Mr. Rolfe, will you point out the number of the buggy you sold to Sir. Geo. Prescott?

A. No. 159.

X-Q. 49. Will you point out the number of the buggy you sold to the other Prescott?

A. It is not down.

X-Q. 50. Do you know who wrote the words Sir Geo. Prescott in this book from your own knowledge?

A. I should say S. G. Rand to the best of my knowledge.

X-Q. 51. What are the words opposite to 159 in this book?

A. Sir Geo. Prescott.

X-Q. 52. What other words or figures are opposite that number?

A. Side bar top. 8—13—75. (Denoting 8th month, 13th day 1875.)

X-Q. 53. What is the number as appears in this book of the buggy you say you sold to Dr. Drake?

A. No. 162.

X-Q. 54. What is all that appears in writing or figures opposite 162?

A. Top side bar. J. Priest, October 23d, '75. Sold Dr. Drake.

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X-Q. 55. State all the words that are opposite No. 170.

A. Top buggy. Priest spring side bar.

X-Q. 56 These appear on page No. 118, and 118 is a continuation of 116, and the entries on this page 118 were made subsequent to those on 116, were they not?

A. I should say they were.

X-Q. 57. Where have those books been since those entries were made in them, or since 1874?

A. They have been packed away most of the time in a box.

X Q. 58. When you testified before, where were these books?

A. Packed away in a box at 991 Monroe street, Chicago.

X Q. 59. Where were they when you testified in the case of Henry Timken against the Columbus Buggy Company?

A. At No. 1230 Wabash Avenue, Chicago.

X-Q. 60. Did you know they were there when you testified in the case of Henry Timken against the Columbus Buggy Company?

A. I did not know that I had anything that referred to the Priest spring, or the buggies shipped to England.

X-Q. 61. When did you first find it out?

A. In looking over the books and papers a few days ago, I ran across it.

X-Q. 62. How long did you continue in business in Detroit after you sold the buggy to Dr. Drake?

A. I think until March, 1882.

X-Q. 63. Did you keep books up till the time you went out of business?

A. I did, but not regular sale books.

X-Q. 64. When did you quit keeping regular sale books?

A. Not after 1877. Mr. Rand left, and I did not keep them after that.

X Q. 65. Did you keep sale books like the ones you have testified from, in the year 1876?

A. Would not be positive about that. Many of my books have been lost.

X-Q. 66. Where is the sale book that follows this one in order of time, if you have any?

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A. It ought to be at home, 991 Monroe street or at store, 123 South Western Avenue, but am not positive that I have any.

X-Q. 67. What is your best recollection about one having been kept?

A. It seems as if I ought to have one up to 1877. After that I am positive I had none.

X Q. 68. What makes you positive you had none after 1877?

A. Because I attended to the selling myself and did not need any.

At this point agreed to adjourn until 5 p. m.

X-Q. 69. By Mr. Eccles. Mr. Rolfe, will you, during the interim make search for the sale book following this one in order of time, and bring it here if you can find it?

Counsel for respondents states that the witness need not make any search for any books or papers not inquired about in the direct examination, and objects to all the foregoing not relating to the exhibits or entries presented to the witness on direct examination for reasons, first, that such examination is improper, and needless waste of time, and second, because complainants have the rebuttal, and can call the witness again if he desires to introduce new matter, or believes this witness has any knowledge relative to the case, not inquired about in direct examination.

A. I will.

Adjourned to 5 p. m.

After adjournment.

X-Q. 70. Do you know who cut the leaves from 1 to 9 out of this book you have been testifying about?

A. Yes sir. I know the person but not the name.

X-Q. 71. When was it done?

A. In January or February, I think, 1875. It might have been in March.

X-Q. 72 That that was cut out was a part of the index of that book, wasn't it?

A. No sir. I don't think there was any index to it. He made some mistakes in taking down the carriages and harness

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and things of that kind, and cut it out. He thought it wasn't much use to the business.

X-Q. 73. Where did he commence to make the entries after he cut that out?

A. Page 108.

X-Q. 74. Don't you know what his name was?

A. No sir. I'm the poorest hand to remember names there ever was. Mr. Rand could give you his name, but I could not. I wasn't in the store much of the time when he was there.

X-Q. 75. Do you know where he lives?

A. No sir. He's a young man that came from the East somewhere, but I don't know what place,

X Q. 76. Did you, during the recess, look for the book which I requested you to look for?

A. Yes sir.

X-Q. 77. Did you find it?

A. No sir.

X-Q. 78. Were these entries which were made on these leaves which were cut out; the first entries that were made in that book?

A. No sir.

X-Q. 79. In this defendant's exhibit, painting bill Dec. 31st, 1874, you have an item of two hundred dollars for painting swell body cutters, then you have an item, to painting side spar wagon twelve dollars. What is a side spar wagon?

A. It's just the same as a side bar wagon. Some used to call them side spar, but now I think they all call them side bar. It's the same buggy.

X-Q. 80. Where did Shaunessy & Nichols do business at the time they rendered this bill?

A. I think it was on Brush street near Gratiot road. They ran the paint shop, and somebody else the carriage shop.

X-Q. 81. Did they do other painting of buggies and wagons for you about that time?

A. I think this is the first wagon they ever painted for me. Shaunessy was a nice painter, so I had him paint this wagon for me, as I wanted it nice.

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X-Q. 82. Didn't he paint Brewster's side bars for you about that time?

A. He might, after that, but I think this is the first buggy he ever painted for me.

X-Q. 83. Is there anything in that bill that shows that that was a Priest cross spring?

A. No sir. There was nothing that shows that it was but I know that it was, for I had it painted and remember the particulars about it.

X-Q. 84. How does it come that you didn't remember these particulars when you testified before?

The question was objected to, as it don't appear that the witness was asked about it before.

A. It was several years ago and I had forgotten all about it, until I was turning over this bill book and saw this bill, and then I remembered that Shaunessy painted the first buggy for me that I ever had painted, with a Priest spring which went to England.

X-Q. 85. You remember it then because you saw the name of Shaunessy in that bill?

A. I saw Shaunessy and the price and the side spar buggy all together, and I know it was the first buggy of that style that he had painted.

X-Q. 86. Then you're as certain of that as you were in your other testimony taken in this case, that Priest made the first spring for you in the latter part of May or the first of June, are you?

The question objected to as misrepresenting the witness' former testimony.

A. In my testimony taken at Detroit, I thought that the first spring that he made was in May or June, but in looking my books over since I came back, I found I had some made in 1874 in the fall and winter.

X-Q. 87. What do you mean by some?

A. The one sent to Lady Prescott was one, as to others I couldn't swear positively. I think there might have been one or two.

X-Q. 88. Well, this one you claim is mentioned in this receipt is the one you sent to Lady Prescott, isn't it?

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A. Yes sir. It was bought by C. W. Prescott.

X-Q. 89. Bought for Lady Prescott's own use, was it?

A. No sir. Bought by C. W. Prescott, but shipped to his mother, as she was some titled lady, I suppose.

X.Q. 90. What has become of the envelope of defendant's exhibit, C. W. Prescott's Lawrence letter?

A. I don't know.

X-Q. 91. Did you make application for shipment and ship personally this carriage to Lady Prescott?

A. I made the application before I went away, that was sometime in March. The buggy wasn't shipped until the 25th, after I left Detroit. I got the rate before I left.

X Q. 92. Who marked the box, if you know?

A. Couldn't tell you. Probably Mr. Rand, as he was in my employ then.

X-Q. 93. Do you know what you charged C. W. Prescott for that buggy?

A. Yes sir.

X Q. 94. How much?

A. Two hundred and twenty-five dollars.

X-Q. 95. It must have been a pretty fine buggy. wasn't it?

A. We thought it was

X Q. 96. Worked well did it?

A. You can see his answer in this letter. It will tell you. Of June 10th, '75. He was much pleased.

X-Q. 97. I asked you if it worked well?

A. I wasn't there. I couldn't tell you. I had his word.

X-Q. 98. Didn't you try it before you sold it to him?

A. Yes sir, we had it hooked up and drove it up and down the road before it was painted to see if it worked right. It worked right and we had it painted and trimmed.

X-Q. 99. Did you use it any after you had it painted and trimmed, or did you sell it to C. W. Prescott fresh from the shop?

A. The buggy was ordered for Mr. Prescott before it was made, and paid for. We did not use it after it was painted.

X-Q. 100. Now this was the first one of these cross springs which Priest ever made for you, as I understand you?

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A. To the best of my recollection.

X-Q. 101. And it was made by Priest under your direction and instruction?

A. Yes sir.

X-Q. 102. And it was the first one having that kind of springs ever made by Priest?

A. It was to the best of my recollection at this time.

X Q. 103. Do you know where C. W. Prescott stopped, when he bought that carriage of you in Detroit?

A. No sir. He was driven up in a hack, just made a short call, told me what he wanted, and I said to him that I didn't have one in stock, but that I would build him one to suit him, and ship it to him. He asked me what the price would be. I said it would be two hundred and twenty-five dollars. He told me to make a bill. I went into the office and made the bill. He paid the money, and that's the last I ever saw of him.

X-Q. 104. Who introduced him to you?

A. The hackman said he had a gentleman who wanted to buy a buggy. There was no introduction further than that.

X-Q. 105. What's this hackman's name, and where does he live?

A. I couldn't tell you. I don't know where he lives, and I don't know his name. I might have known at the time, but I have forgotten it.

X-Q. 106. Didn't you say in your deposition at Detroit, taken in this case, that you had examined your books and memoranda, which enabled you to testify to the date when Priest made this first spring for you, or words to that effect?

A. That was relative to the springs that were made when I came back from Denver, which I supposed were the first that I had made, until I looked at the books.

X Q. 107. Then you had not examined your books at that time with reference to the date when Priest made the first cross spring?

A. I hadn't examined this book nor the shipping bills of the goods sent to England. I thought this was shipped after that, but was mistaken.

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X-Q. 108. Nor the receipt, defendant's exhibit, painting bill Dec. 31st, 1874, you hadn't examined that then either had you?

A. No sir.

X-Q. 109. You hadn't examined any books or memoranda then, with a view to ascertain that date?

A. Yes, I think I had.

X Q. 110. Well, what were they?

A. It was to settle the time when I was in Denver that we referred to that. I returned either the last of May or first of June, 1875.

X-Q. 111. What had you examined to ascertain that date?

A. Some letters and bills that I had in Denver for keeping some horses and so on.

X-Q. 112. You didn't examine any books?

A. Yes, bill books.

X-Q. 113. Were these books that you examined in the same box or place that this was that you testified about?

A. Yes they were in the same place. The bills were pasted in blank books.

ALONZO ROLFE.

The above testimony was taken before me on the dates and at the place heretofore mentioned, the witness, Alonzo Rolfe being first duly sworn according to law, and at the conclusion of his examination witness his name subscribed thereto.

Given under my hand and Notarial seal this eleventh (11th) day of April A. D. 1887.

CHARLES A. ROGERS,
Notary Public.

321 And afterwards, to wit, on the 12th day of May, A. D. 1887, the following motion was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Motion.

United States Circuit Court, S. D. O., W. D.

HENRY TIMKEN
vs.
T. D. OLIN & E. D. OLIN. } In Equity. No. 3853.

Now comes the def'ts, by their solicitor, Geo. W. Murray, and moves for leave to file an amended answer to the bill & amended bill of complaint in the above-entitled cause.

GEO. J. MURRAY,
Sol'r for Def'ts.

And afterwards, to wit, on the 12th day of May, A. D. 1887, the following motion was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Amended Answer, Notice of Motion, and Affidavit.

322 Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity.

The complainant in the above-entitled cause will take notice that on Saturday, May 14th, at the opening of court, or as soon thereafter as counsel can be heard, the respondents will move the court for leave to file an amendment to the answers heretofore filed in this cause, which amended answer and the affidavit of Geo. J. Murray in support of same accompanies the motion.

Respectfully,
GEO. J. MURRAY,
Solicitor for Defendants.

Service of copies of notice of motion, affidavit and amendment, acknowledged this 12th day of May, 1887.

WM. HUBBELL FISHER,
Solicitor and Counsel for Complainant.

323 Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity. No. 3853.

STATE OF OHIO, *County of Hamilton,* } *ss:*

Geo. J. Murray, being duly sworn, deposes and says that he is the solicitor and counsel for defendants herein. That he believes that the matters set forth in the amended answer hereto annexed to be good and valid defenses to this suit, and that such matters came to his knowledge only recently and since the filing of the answer to the amended bill of complaint. That this amendment is not sought for the purpose of delay, and that he hereby waives additional replication to this amendment.

GEO. J. MURRAY.

Subscribed and sworn to before me this 12th day of May, 1887.
DAVID S. OLIVER,
Notary Public, Hamilton County, Ohio.

324 Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity.

Amended Answer.

Upon leave of court obtained, the defendants hereby amend their answer to original bill and to amended bill as follows:

By inserting immediately after the first paragraph of clause ninth on page 5 of answer to original bill, "to Samuel Gibson Rand, now residing at Detroit, Michigan."

In the same clause in line 4 of page 6, after "Charles E. Matlock," insert "Philip Fisher, Jackson H. Wright. At Scranton, Lackawanna county, Pennsylvania; at Hazelton and Pittston, Luzerne county, Pennsylvania, which use was known, among others, to William Blume, J. M. Kemmerrer, and William Sheffel, all of said Scranton; to Kunkle Bros., E. P. Kisner, lawyer, 10 N. Franklin Ave., Ario Thompson, Philip Koenig, —— Peters, —— Boone, William Hughes, Martin Betzger, No. 12, and Daniel Kegel, all of said Hazelton; to Charles Mills, of Sandy Run, Luzerne county, Pennsylvania; to Thomas Powey of said Pittston; to J. W. Hutz-

inger, of Conyngham, Luzerne county, Pennsylvania; to
325 Daniel P. Ruple, who now resides at Columbus, Franklin county, Ohio; George Lindeman, of Dubois, Clearfield county, Pennsylvania; Elias Breidenbach, of Dayton, Ohio."

And these defendants say, on information and belief, that long before the pretended invention of said Henry Timken as aforesaid, the same thing was in all substantial and material parts invented by the said Alonzo Rolf, Joram Priest, Jackson H. Wright, S. E. Kierolf and Daniel P. Ruple, above named, and by them and each of them, fully illustrated and explained to others. And that the said Henry Timken surreptitiously obtained the patent sued upon for what he knew to be the invention of said Daniel P. Ruple, Joram Priest and S. E. Kierolf.

EDWIN D. OLIN.

GEO. J. MURRAY,
Solicitor for Respondents.

STATE OF OHIO, }
County of Hamilton, } ss:

Edwin D. Olin, one of the defendants above named, being first duly sworn deposes and says that he has read the above amended answer subscribed by him, and knows the contents thereof; that the same is true of his own knowledge except as to the matters therein stated on information and belief, and as to these matters he believes them to be true.

EDWIN D. OLIN.

Subscribed and sworn to before me this 12th day of May, 1887.
DAVID S. OLIVER,
Notary Public, Hamilton County, Ohio.

326 And afterwards, to wit, on the 14th day of March, A. D. 1887, an entry was made upon the journal of said court clothed in the words and figures following, to wit:

Journal X, p. 199.

The motion to file an amended answer herein is granted and the same is filed.

And afterwards, to wit, on the 21st day of May, A. D. 1887, an entry was made upon the journal of said court clothed in the words and figures following, to wit:

Journal X, p. 201.

On motion of the complainant, the respondent appearing *contra*, it is ordered that the respondents be allowed to examine D. P. Ruple only, and that the taking of further testimony by the respondents be suspended until the 22d day of June, 1887, and that complainant have until the said 22d day of June to demur or take exception,

should he so desire, to the amended answer of respondents
327 filed May 14, 1887.

It is further ordered that the respondents again produce the said Rupel for further cross-examination, if, in the judgment of the complainant, it is desirable and necessary to further cross-examine said Rupel, subsequent to said 22d day of June, 1887.

And afterwards, to wit, on the 1st day of June, A. D. 1887, the following replication was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

328 *Replication.*

The Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant, *vs.* THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants.	In Equity. No. 3853.

The replication of Henry Timken, complainant, to the amended answer of Thomas D. Olin and Edwin D. Olin, composing the firm of T. D. Olin & Co., defendants.

This repliant, saving and reserving unto himself all and all manner of advantage of exception to the manifold insufficiencies of the said answer, for replication thereunto saith, that he will aver and prove his said bill to be true, certain and sufficient in law to be answered unto, and that the said answer of the said defendant is uncertain, untrue and insufficient to be replied unto by this repliant; without this that any other matter or thing whatsoever in the said answer contained, material or effectual in the law to be replied unto, confessed and avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver and prove as this honorable court shall direct, and humbly prays as in and by his said bill he hath already prayed.

WM. M. ECCLES,
WM. HUBBELL FISHER,
Solicitors for Complainant.

329–346 And afterwards, to wit, on the 2nd day of June, A. D. 1887, the following deposition was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Deposition of Daniel B. Ruple.

* * * * * * *

D. B. Ruple

Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, composing the firm of T. D. OLIN & Co.
} In Equity No. 3958.

Depositions taken on behalf of the respondents in the above cause before me, David S Oliver, Special examiner and Notary Public in and for Hamilton County, Ohio, pursuant to the notice hereto annexed and at the time and place named therein.

Present, George J. Murray, on behalf of Respondents and Wm. M. Eccles on behalf of Complainant.

DANIEL B. RUPLE, being duly sworn deposes and says as follows :

Q. 1. State your name, age residence and occupation.

A. Daniel B Ruple. Age. 32 years. Residence has always been Scranton, what I call home. Columbus has been my residence for the past year. Am a carriage wood worker.

Q. 2. Are you familliar with what is known to the carriage trade as the Timken spring?

A. I am perfectly familiar with it, sir.

Q. 3. State when you first knew of a spring of that character having been invented or used by any one ?

Objected to as leading.

A. The first idea I ever had of that spring was in the winter of '76 or '77.

Q. 4. By whom was that spring made or invented, and what kind of a spring was it?

A. The spring was invented by myself. The first spring was made bp Philip Koenig. It was a half spring extending from the side bar to the opposite side of the body—to the extreme opposite side.

Q. 5. How did that spring, when applied to a buggy, correspond with or differ from what is known as the Timken spring?

Objected to as leading.

A. The first spring—the only difference between the

D. B. Ruple

first spring that I made was straighter at the points than the present Timken spring. That set of springs there was tested only once and then taken off. They were too soft. They would not stand up. I then ordered a set from Insul & Dovey, of Philadelphia Those springs there were under the buggy some time. That second set were also too straight. I used that set of springs to the best of my knowledge say three months. Probably it might have been longer. During the time that them springs were under I drawed a draught of another set and sent to Insul & Dovey. The springs that the draught were drawn for, the order lay in their hands in the neighborhood of two to three months before I got them. They refused to answer any correspondence on that order either by telegraph or letter. That set of springs there was a fac simile of the present Timken spring with the exception of one leaf. That leaf did not extend out so as to catch the body sill. Those springs are under the buggy, yet if the buggy is in use and they haven't been taken out, I never changed them

Q. 6. What time was this last set of springs you have spoken of put under the buggy?

A. Well, it was in very hot weather. I think June or July 1877. After those springs went under, the buggy was complete. I never did any thing to it in the way of improvement after that. During that summer G. F. Driesback stove the buggy off and it had to be repaired, but the springs were not injured. The wheels and axles catched it that time.

Q. 7. What became of that buggy if you know, after it left your hands, and how long was it in your hands?

A. The following season I sold it to a man named Thompson, and Geddo. (Should be at Jeddo.)

Q. 8. What became of it if you know, after it was sold to Thompson? Please give a history of that buggy and trace it up to the last time you saw or heard of it.

A. I do not know that I ever saw the buggy after I sold it to him. I often heard of it. I heard the parties speaking of "the little wagon." That was all I heard of it after it left my hands. It was a light, three-quarter road wagon, very light, the lightest wagon in that section of the country.

Q. 9. Where was that wagon made?

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A. It was made at Hazelton, Pennsylvania. The woodwork and most of the iron work was done by myself and the putting together. The wagon was made evenings after working hours.

Q. 10. Were there any more wagons having springs of that character under them, made by yourself or others during the year 1877 or prior thereto?

A. There was a butcher I think at Audenried got one of them in 1877. I am not positive whether that butcher lived at Audenried or over towards Eckley. I am not positive as to his place of business now. That is the only buggy I recollect of finishing in 1877 outside of my own. I took Driesback's order that fall for a top order. The Driesback wagon was built by myself. It was built that fall and winter, evenings. I showed this little wagon to William Blume in 1877 and gave him a pattern of the springs. He sent the pattern I think to Rowland. He said he was going to get some, but how many I don't know.

That part of the answer which purports to state what Rowland said is objected to as hearsay.

Q. 11. Please state whether or not you ever made an effort to obtain a patent upon your invention.

A. In the winter of '77 and '78, the fall rather, after I was satisfied it was perfect, I sent a model to Munn & Co., of New York City for examination. They reported favorable. In the course of a month or six weeks after that I sent them specifications and the first instalment. It was then probably that much longer before the specifications were returned to me.

Q. 12. Please, in one answer give a detailed history of your invention from its conception to its embodiment in drawings, model or full sized set of springs, and state what efforts were made to obtain a patent upon the same, and the reason, if any, why your application was not successfully prosecuted in the patent office.

Latter part of the question objected to as irrelevant, and for the further reason that the drawings and specifications are the best evidence of what the invention contained.

A. My first idea was to use as long a spring as possible.

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In measuring a side spring the idea struck me of cutting it and crossing it. I went to work then when that idea struck me, and put up the wood work for that kind of a wagon. I experimented then till I got the spring to working perfect. The only trouble that I had was to keep from twisting my bar, that I accomplished in the third set of springs by making the springs of such an arch at the ends so it would take as much as it give. I then ran the wagon until I was perfectly satisfied before I made any effort whatever for a patent. That fall I sent to them for a book of reference—a hand book. I then made a model out of a saw blade and sent it to them for a preliminary examination. They reported to me favorable on that. I waited then awhile and sent them the specifications. The model they already had. The specifications after they were sworn to were sent back to Munn & Co. They rejected those claims on the ground of Mr. Timken's interference. That's what they wrote me.

All that part of the answer in relation to what was done in the patent office objected to as not being the best evidence.

Q. 13. Was there an interference declared actually between your application and the application or patent of Mr. Timken, and if there was, please state why you did not prosecute the interference in the patent office?

First part of question objected to because the record evidence is the best, and the last part objected to because it is irrelevant.

A. I do not understand what you mean by "actual interference."

Q. 14. Weil then state what information you received from Munn & Co. in regard to a rejection or interference in your application on tbe ground of an interference with an alleged invention of Mr. Timken and state what you did after receiving such information with your reasons for whatever action you took in the matter.

Same objections as last above stated.

A. I wrote to them asking what could be done in the matter. They wrote me that it would cost me one hundred and ten dollars for some legal process, I do not know what they named

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it now, I do not remember. The money I did not have at that time. I then went to Alsover an Attorney at Haselton and told him I would like to have him look the matter up. I did not feel satisfied with Munn & Co., he informed me that it would cost me a Thousand dollars or probably more. I made up my mind then to give it up, as I could not stand the pressure on that much money.

Objected to as hearsay.

Q. 15. When did you first see the Timken spring manufactured by Mr. Timken or any of his agents or licencees, and when did you first see a copy of the Timken patent or a circular or drawing, illustrating the Timken spring?

A. The first Timken spring I ever saw, was in the spring of 1879, the first one I ever saw outside of my own. I saw Mr. Timken's agent in the winter of '78—'79. He came to the shop where I was working as he claimed to see me. He was at first very abusive, he got over that however, he claimed that he was going to have a royalty on each and every set of springs that I had handled. I coaxed him to go ahead and get his royalty. Mr. Blume told him at that time,—as a bluff of course,—that I had between two and three hundred sets of springs on hand. The agent came in in the afternoon and told me to go ahead and sell springs that I had on hand at Timken prices. I was selling at cost. He then said as you have this territory pretty well advertised, they would make some arrangements for me to go ahead and sell springs for them, if I would. I told him I would continue to sell on my own hook regardless of royalty. He advised me that I had better let the spring alone, that I would get myself in trouble. I dont know that much of anything else passed between us except that I told him I hoped he would go ahead and open up a suit against me.

Q. 16. Was any suit brought against you?

A. No sir.

Q. 17. What did you do with the springs you had on hand at that time or did you continue to make springs thereafter or did you stop making them?

A. I only had at that time I think three sets, I put them

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under buggies. I think I ordered a couple of sets more and then quit.

Last three questions and answers objected to because they are irrelevant.

Q. 18. If you only had three sets of springs on hand at the time Mr. Timken's agent called, why did you tell him you had between two and three hundred sets?

A. I wanted to see what he would do. Mr. William Blume told him that I didnt try to deny it as I wanted him to open up a suit on me.

Q. 19. Do you know anything about a fire having occurred at the Patent office which burned up a great many models?

Objected to as irrelevant.

A. I read an account of it in the Scientific American. I made a remark to one of my friends that they wouldnt have had to have waited long to catch my model with a fire or something to that effect. I do not remember the words now.

Objected to as irrelevant.

Q. 20. Was it before or after that fire you had sent your model to Munn & Co. to have a preliminary examination made as to the patent ability of your spring?

Objected to because it is cross-examination of defendants own witness.

A. It was shortly after the fire. I couldn't say how long.

Q. 21. Was it before or after that fire that you made the model which you sent to Munn & Co.?

Same objection.

A. Shortly after.

Q. 22. I now hand you a certified copy from the files of the Patent office of file wrapper, contents and drawings in the matter of the application of Daniel B. Ruple filed April 24, 1878, for improvement in wagon springs. Please examine the same and state if you are the Daniel B. Ruple referred to in said application and state whether you recognize the same as the application which you say you made through Munn & Co.

A. Those applications are all right to the best of my

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knowledge so far as I can remember. The drawing is not exactly as the model was, this drawing hasn't the curve in the end of the spring as much as my model had, with that exception the specifications and drawings are all right. That is the same application that was made through Munn & Co. I am the same Daniel B. Ruple.

Q. 23. I notice that the bar A is recessed upon the under side leaving downwardly projecting portions upon which the springs B are secured are these downward projections on the model you sent to Munn & Co. in one piece with the bar A or were they separate blocks secured on the bar?

Objected to as cross-examination and leading.

A. Those blocks I know nothing about. My model was all on flat bars, I never put up a set of springs to my knowledge in that way. I do not understand that drawing.

Q. 24. When did you first see the drawing of your springs made from your model which drawing was filed in the Patent office with your application?

A. The first drawing I ever saw was this one, three or four days ago.

Q. 25. Have you read over the specifications in your application which you have just examined?

Objected to as cross-examination by defendants of their own witness and an attempt to impeach their own witness.

A. I read them when Mr. Olin handed them to me in his office. I was mistaken about three or four days, it was yesterday he handed me the specifications and I read them.

Q. 26. How does the specification correspond with or differ from the specification which you say you wrote out and sent to Munn & Co.?

Same objection.

A. I can't see there is any difference in the specifications.

The certified copy referred to is herewith offered in evidence and the notary will mark the same "Defendants' Exhibit Ruple Application."

Objected to as irrelevant.

Adjourned to 2:30 P. M. same day.

Met pursuant to adjournment.

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CROSS-EXAMINATION.

X-Q. 27. Did that running-gear upon which you put the first springs which you say you invented have a straight perch running from the hind axle straight to the bolster or head-block?

A. It had no perch at all.

X Q. 28. How wide was the box of that wagon?

A. Well, from twenty to twenty-two inches. It was a three-quarter job, very light. I can't remember the exact widths as long ago as that.

X-Q. 29. How long were the springs?

A. The springs reached from the side bar to the opposite side of the body.

X-Q. 30. Do you know how long they were?

A. In the neighborhood of 22 inches.

X-Q. 31. Why did you take the first set off of the buggy?

A. They were too soft and good for nothing. They sagged down. They were made by myself and an apprentice boy. I helped to make them.

X-Q. 32. You tried them once and they sank right down and wouldn't spring back again, would they?

A. They sagged enough to convince me they were good for nothing.

X-Q. 33. What did you do with that buggy after you took them off?

A. Stacked it up in the shop till I got another set of springs.

X-Q. 34. Who was you working for at the time you took those springs off?

A. Breitenbach & Lindemann.

X-Q. 35. When those springs were took off, was that wagon a finished wagon in other respects?

A. It was tested before the painting was complete.

X.Q. 36. Then, except being painted, it was a finished wagon, in other respects except the springs, when the springs were taken off?

A. It had no cushions nor no dash, I think.

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X Q. 37. What part of the shop was it put in when you took those springs off?

A. It was taken then into the paint shop.

X-Q. 38 When those first springs were put on how high was the bottom of the body above the side bars?

A. I think the bottom of the body was about level with the center of the side bars. The side bars being on an arch.

X-Q. 39. The ends of the springs where the eyes are were straight, were they not?

A. There is nearly a description of the first set of springs. (Showing Notary a sketch.)

X-Q. 40. And when the springs were pressed down they would rack the body, you said?

A. By scratching the clips on the side of the bar. It throwed the wagon all out of shape by the springs giving away.

X-Q. 41. Were they hung to the side bars by swinging clips or rigid clips, the first set?

A. The first set of springs were hung on a swinging crank.

X-Q. 42. Was the swinging crank on both sides?

A. They were four of them, one at the end of each spring.

X-Q. 43 About how long were these cranks?

A. Oh, from an inch and a half to two inches from center to center.

X-Q. 44. Now, after you took these springs off and sent for the second set, you say that when they arrived and were tested, that they were too straight. Were they also too weak, the second set?

A. They were too straight, but they were hung in solid shackles, the second set.

X-Q. 45. How long was it now, after you took the first set off before you received the second set?

A. About ten days.

X-Q. 46. How long after you gave the order for the second set was it before you received them from the spring makers?

A. It was in the neighborhood of ten days, I think.

X-Q. 47. Now, you say in your direct examination that you used that set about three months. probably longer. Did you have a horse of your own at that time?

A. I hired a livery horse. I got the horse for half price, furnishing my own buggy.

X-Q. 48. Who did you hire the livery horse from?

A. Different parties. Kunkle Bros., Wm. Hughes, and once in a while I drove a friend's horse.

X Q. 49. About how many times in that three months did you use that buggy?

A. I generally drove it Sundays when the roads were nice. Once in a while, evenings.

X-Q. 50. Did it take you the whole three months to discover that spring wouldn't work?

A. I discovered it immediately and placed my order immediately for the third set of springs that went on the wagon. I didn't hear a word from the spring parties during these three months, either by letter or telegraph. I have always felt pretty well satisfied that they helped skin me out of the patent.

X-Q. 51. Who do you mean by "they"? This Insul & Dovey?

A. Insul & Dovey, of Philadelphia, spring manufacturers.

X-Q. 52. Was that the firm name they went by, Insul & Dovey, or what was it?

Insul & Dovey were the parties I dealt with at that time.

X Q. 53. How long was it after you put the second pair of springs on that wagon that you made the draught for the third set?

A. As soon as I found the second set wouldn't work. I then took a saw blade and I got the proper give and take so as the spring would take as much on the end as it would give on the in arch.

X-Q. 54. That is, you bent it up at the end where the eye was so that that bend would take up the spread and contraction of the spring as it moved up and down between the side bars?

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A. The end arch would take up the stretch of the back arch. That's the idea.

X-Q. 55. And this was in the summer or fall of 1877?

A. In June or July. 1877.

X-Q. 56. What makes you think it was June or July?

A. It was getting along pretty hot weather when I got through with that spring, and taking into consideration the time I had to wait.

X Q. 57. Then when you got this third spring bent up at the ends and attached it to the wagon with tight clips it worked perfectly satisfactorily, didn't it?

A. After taking the jacks off and putting on shorter jacks. The jacks on the second set of springs were very long.

X-Q. 58. What do you mean by the jacks?

A. The couplings to couple the spring on the bar.

X-Q. 59. How long did you use this third set of springs before you changed the jacks?

A. I changed the jacks immediately. I knew my springs were right I coupled them then as close to the bar as possible.

X-Q. 60. How long were the jacks or shackles on the second set of springs, from the bottom of the side bar to where the springs were attached?

A. They probably left the spring away from the bar about an inch.

X-Q. 61. Now it required study and experiment for you to arrive at the form of this last spring at its end, did it not?

A. It required study to prevent twisting the bar. The Timken spring still twists the bar.

Last part of the answer excepted to as not responsive to the question.

X-Q 62. The second spring that you had twisted the bar very materially, did it not, in its action?

A. Not a great deal. The long jacks overcame that.

X-Q. 63. What time was it you showed this wagon to William Blume in 1877?

A. It was early in the summer, I can't specify the month.

A. C. B. Ruble

X-Q. 64. Was it before or after you put the last springs on?

A. I don't recollect what springs it had on when I showed it to Mr. Blume.

X-Q. 65. When did you first become satisfied that this vehicle was perfect?

A. I was pretty well satisfied when I put the third set on. The more I drove it the more I liked it.

X Q. 66. How soon did you become fully satisfied?

A. I do not know but that I was fully satisfied as soon as the third set was under. I didn't do no more experimenting on it after that.

X-Q. 67. Now you fully intended when you got it perfect to apply for a patent, did you not and as soon as you were satisfied with it?

A. I hadn't up to that time given the patent as much thought as I had the wagon.

X-Q. Well, you were intending all this time to patent your invention, were you not?

A. As soon as I was satisfied I had a perfect wagon, a wagon that would go on the market. I spoke to ex-judge Ward about the patent. He told me I had a year to take my papers out.

X-Q. 69. How long after you put the third set of springs on was it before you commenced to make the model sent to Munn & Co.

A. It was along late in the Fall before I sent to them for their book on patents. After I got that then I sent them a model for preliminary examination.

X-Q. 70. Did you make this model yourself?

A. I did.

X-Q. 71. Was you then working every day at your trade?

A. I had a steady position but I wasn't working steady, not every day.

X-Q. 72. Who was you working for at that time?

A. Breitenback and Lindemann.

X-Q. 73. How long did it take you to make that model? T is how many days was it from the time you commenced it till you finished it.

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A. I made it in one evening.

X-Q. 74. How long was it after you finished it that you sent it off to Munn & Co?

A. I sent it either that evening or the next morning.

X-Q. 75. Did you send it by express? If so by what express did you send it?

A. The model was sent I think by mail.

X Q. 76. How large was that model?

A. The springs I think were about 2½ inches long.

X-Q. 77. What was the outside length and outside width of that model?

A. About 1½ inch by 3 or 3¼ inches.

X Q. 78. Did it have any side-bars to it?

A. The naked spring screwed on a little block.

X Q. 79. Were there any shackles attached to those springs?

A. No.

X-Q. 80. In what month did the fire occur in the Patent Office?

A. I couldn't state.

X-Q. 81. Do you know whether it was in the spring, summer or fall?

A. It was in the Fall. I saw an account of it in the Scientific American.

X-Q. 82. What year was it in?

A. In 1877.

X-Q. 83. Do you know what month you read an account of the fire in the Scientific American?

A. I do not.

X-Q. 84. Do you know how long the fire had occurred before you read of it in the Scientific American?

A. I couldn't say exactly but it was shortly after. I was taking the paper regularly.

X-Q. 85. Was it before or after you had made your model? That you read of it in the Scientific American?

A. The model was made after the fire, shortly after.

X-Q. 86. Was the model made before or after you read the account in the Scientific American?

A. The model was made before.

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X-Q. 87. Didn't you just now state that the model was made shortly after you read the account of the fire?

A. I made a remark to a friend of mine that my model was safe when I read the account.

X Q. 88. I didn't ask you what remark you made to your friend. I asked if you didn't state in this deposition that the model was made shortly after you read the account of the fire?

A. I think not. The only interest I had in the fire was my model.

X-Q. 89. Then your model was made before you read an account of the fire?

A. Yes.

X Q. 90. And was sent to Munn & Co. before you read an account of the fire?

A. The model was on its way. That's what calls the fire to my mind because I took an interest in it then.

X-Q. 91. How long had it been on its way before you read an account of the fire?

A. Only a short time. a day or two. The whole thing happened in a week or ten days.

X-Q. 92. Why did you state in your direct examination that it was shortly after that, meaning the date when you read an account of the fire, that you sent the model? Is it a careless way you have of stating facts?

A. The model was sent shortly after this fire. This thing has been so long ago that I have to take such things to go by.

X-Q. 93. Where did you get the springs to make your first set of springs from?

A. I am not certain as to that, I think they were made part out of old springs and part out of new steel. I used some old leaves to save work, I know that.

X-Q. 94. Where did you get the old leaves that you used?

A. There is always lots of them in the scrap pile in any carriage shop.

X-Q. 95. Did you get these leaves from the scrap in the carriage shop that you made the first springs from?

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A. The first springs were made out of old leaves and new steel.

X-Q. 96; Did you get the old leaves that you used in making your first set of springs in the carriage shop where you worked?

A. What old leaves I used, yes.

X-Q. 97. Did you get the new steel that you used at the same shop?

A. I had to buy the new steel.

X-Q. 98. Who did you buy it from?

A. That I cannot say, I bought it in town but from whom I cannot say.

X-Q. 99. Were you financially any better off at the time when Mr. Timken's agent called upon you and threatened you with suit as you say than you were when Munn & Co. wrote you that it would cost you one hundred and ten dollars to carry on the interference suit with Timken?

A. I was considerably better fixed financially.

X-Q. 100. Why didn't you then carry on your interference suit if you were so anxious for Mr. Timken to sue you?

A. I wanted him to come to my home to fight where I was. The evidence was all there, the facts in the case.

X-Q. 101. Is that all the reason?

A. That is the reason I had.

X-Q. 102. Then you were willing to lose a valuable patent simply because you wanted Mr. Timken to come and sue you on your own dung-hill?

A. I was never willing to lose it but neglected to sue because of the heavy cost I knew it would incur on me if I commenced to sue him.

X Q. 103. What interest did Mr. Blume have in your spring at that time, any?

A. None at all whatever except friendship.

X-Q. 104. When Mr. Blume told the agent that you had between two and three hundred sets on hand you was present and acquiesced in it and nodded assent, didn't you?

A. I made no effort to deny it, it was given the agent as a bluff.

X Q. 105. And you thereby intended to convey a false-

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hood as to the number of springs you had made with tne intention of deceiving him, did you not?

A. I intended to encourage him to open a suit.

X-Q. 106. By telling him a lie?

Objected to as unfairly representing what the witness did.

A. A straight business lie.

X-Q. 107. What interest did Blume have in it at that time?

A. None at all.

X-Q. 108. Where did Blume live at that time?

A. In what was known as West Scranton or Hyde Park.

X-Q. 109. Did you tell the agent when you first made a set of springs like that?

A. I don't think I did. I think in our conversation he asked me. I have a faint recollection, he did.

X Q. 110. Was you at that time taking the Scientific American and how long had you been taking it prior thereto?

A. I cancelled my order for the Scientific American with the book dealer before I left Hazelton.

X Q. 111. Did you take the Scientific American during the whole year of 1877?

A. I think not. I don't think I took it the whole year. I took it the greater part of the year.

X-Q. 112. Did you take it in the months of August, September, October and November of 1877?

A. Yes.

X Q. 113. Did you ever take the official Gazette in 1877?

A. I never took that paper.

X-Q. 114. Did the Scientific American in 1877 publish cuts and claims of patents as they were issued?

A. They gave a sort of local notice of patents that they issued.

X-Q. 115. Did you ever hear of the Timken spring before 1879?

A. I heard of it—yes, but I never saw it before 1879.

X-Q. 116. Did you ever hear of the Timken spring in 1877?

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A. I did not.

X-Q. 117. Where have you lived since 1877?

A. In Hazelton and Scranton. I went to Scranton in the Fall of 1878.

X-Q. 118. How long did you live in Scranton?

A I have lived there the biggest part of my life.

X-Q. 119. Where did you go to when you left Scranton?

A. I went to different places from there. The last time I left Scranton I went to Columbus, Ohio.

X-Q 120. When did you first change your residence from Scranton and where did you go? Since 1877?

A. I left Scranton in the Fall of '76 and went to Hazelton, stayed there nearly two years, I then went back to Scranton. I stayed there until a year ago last January.

X-Q. 121. Then where did you go?

A. I left Scranton for Columbus.

X Q. 122 Where did you live in Columbus and what did you do?

A. I boarded at 26 West Long st., and worked at the Excelsior Seat Works. I left there and went to the Scioto Buggy Works. Left the Scioto and went back to the Excelsior. Left the Excelsior and went to the W. S. Carriage Co. Then to Cincinnati.

X Q. 123. Are you now living in Cincinnati?

A. I am stopping here at present.

X-Q. 124. When did you leave Columbus?

A. The fore part of last week.

X-Q. 125. Have you been living in Columbus continuously since you first went there up to the time you left for Cincinnati?

A. Yes, sir.

X-Q. 126. Are you a married man or single?

A. Single.

X-Q. 127. Tell me where you boarded in Columbus since you began to live there.

A. 26 West Long st.

X-Q. 128. Was your name in the directory during those years as boarding at 26 West Long st?

A. Yes.

D. B. Ruple

X-Q. 129. Did your friends at Scranton know you were in Columbus, Ohio?

A. I never corresponded with anybody.

X-Q. 130. Have you no relatives in Scranton?

A. I have an aunt there.

X Q. 131. Did she know where you had gone?

A. No.

X-Q. 132. What is your aunt's name in Scranton?

A. Catherine Whitbeck.

X-Q. 133. What is the person's name who keeps the boarding house at 26 West Long st., Columbus, O.?

A. Thomas B. Glass.

X-Q. 134. By whom are you employed now, if anybody?

A. I'm not doing anything.

X-Q. 135. Where do you intend to live in the future, Columbus or Cincinnati, or do you intend to leave the State?

A. I expect to go into business about the first of the month near Pittsburgh.

X Q. 136. Will you drop me a postal card and let me know your whereabouts for the next six months if I give you my address?

A. Yes.

X-Q. 137. When did Olin find out your address, if you know?

A. I don't know.

X-Q. 138. When did you first see him?

A. I think it was Tuesday of last week.

X-Q. 139. How came you to come here?

A. Mr. Olin sent for me.

X-Q. 140. When did he send for you?

A. The first of last week.

DANIEL B. RUPLE.

347 STATE OF OHIO, } ss:
Hamilton Co., }

I, David S. Oliver, a notary public in and for Hamilton county, Ohio, by consent of counsel acting ex. in the foregoing cause, do hereby certify that the foregoing deposition of Daniel B. Ruple was taken on behalf of the respondents, pursuant to the notice hereto annexed, at the time and place named therein; that the said witness was duly sworn and examined and the deposition of said witness was reduced to writing and by him subscribed in my presence; that William M. Eccles appeared on behalf of complainant and George J. Murray on behalf of respondents; that I am not connected by blood or marriage with any of said parties nor interested, directly or indirectly, in the matter in controversy.

Witness my hand and official seal this 24th day of May, A. D. 1887.

DAVID S. OLIVER,
N. P., Hamilton Co., O., Acting Examiner as Aforesaid.

348–391½ And afterwards, to wit, on the 29th day of June, A. D. 1887, the following deposition- *was* filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Depositions of J. M. Kammerer & Others.

A. I have resided in Scranton twenty-four years, and have done the same business in the same place twenty years the first of last April.

Q. 3. Are you acquainted with Daniel B. Ruple who was engaged as a workman in the carriage trade at Scranton and Hazleton, Pennsylvania, and if you are, state when you knew him?

A. I am acquainted with him and have known him for the last twenty years; about.

Q. 4. Do you knew of Mr. Ruple's having made any invention or improvement in springs for side bar vehicles?

A. Yes sir, I do.

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Q. 5. Please state when you first knew of such invention, and describe the springs as accurately as you can?

A. As near as I can get at it, it was early in the year 1876, that is, in the spring of 1876. The 17th of March, 1876 he bought a pair of double sweep concord springs, and some time later, I can't say just when, he showed me the springs; the end was cut off and placed on spring bar and fastened to side bar. He told me they were the springs I had sent him—the concord springs I had sent him. The principle involved was the same as the Henry Timken spring of to-day.

Complainant objects to that part of the answer which purports to state the language of Mr. Ruple. as hearsay evidence. And also to that part of the answer commencing with "the principle involved," and ending with the words "to-day" as stating a conclusion of law, and not a fact. Complainant also objects to the whole answer for the reason that the witness while testifying used a paper to refresh his memory, which was not made by him or by his direction at the time the occurrence spoken of by him took place.

Q. 5. State how long you have been familiar with what you term the Henry Timken spring, and its use on side bar vehicles.

A. Well, the most positive knowledge I have of this spring was some time in April or May of 1877. I rode in a carriage then.

Q. 7. By whom was that carriage and springs made, if you know?

A. I rode with D. B. Ruple some time in April or May in a carriage that he claimed to be his invention.

Q. 8. When did you first learn of, or become familiar with what is now known as the Henry Timken spring as manufactured by him or his agents and licensees?

A. I couldn't answer that question. I could by referring to our books.

Q. 9. State how many springs or sections of springs were used in the carriage you rode in with Mr. Ruple in April or May, 1877, and state also to what portion of this body or the spring bar heavy ends of the springs were attached, and

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what position they occupied with relation to the body and side bars.

Objection by complainant. The question is leading.

A. I know of three wagons the springs were used on. The heavy ends of the springs were used on the spring bars. The nearest that I can describe the springs that Mr. Ruple used that I rode on, were just like, or very nearly like those of the Henry Timken to-day.

Q. 10. When did you see the other two wagons with similar springs? To whom did they belong? How extensively were they used to your knowledge, and what has now become of them?

A. I saw the other two wagons with similar springs in the summer of 1877; one was in possession of Daniel B. Ruple, another in possession of Driesback, a liquor merchant of Hazleton, Pa. I saw another at Kunkle Brothers' liverymen of Hazleton; that's as far as I know; I couldn't say what has now become of them.

Q. 11. Please state what the paper or memoranda was that you referred to in giving one of your former answers?

Objection. The paper is the best evidence.

A. It was taken from the original entry of the date of the sale of the springs.

Q. 12. You have then referred to your books of original entry in order to refresh your memory before testifying, have you?

A. I referred to the original entry of springs some time ago, probably six weeks ago. I made this memorsndum from the memorandum I made and gave Mr. Olin at that ti me this memorandum I made this morning.

Q. 13 Can you state how long you were familiar with these springs made and put in use by Mr. Ruple, before you knew of, or, had seen, any of the springs of the same character made or sold by Mr. Timken or his agents or licensees? About how long?

A. Well, from one to two years. Mr. Blume suggests something to me in regard to this answer that makes me think it may have been three years. My books will tell.

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Q. 14. Will you please, at the adjournment refer to your books and answer the former question definitely?

A. Yes sir.

Q. 15. Where was it you saw the first buggy, which you say Mr. Ruple showed you?

A. It was in the shop of his employer at Hazleton, Pa.

Q. 16. Was that the buggy you rode in, in April or May?

A. No sir.

Q. 17. Where was it you rode in that buggy?

A. At Pittston, Pa.

Q. 18. Did you go to Pittston for the purpose of seeing that buggy or were you there on other business?

Objection. The question is leading.

A. Mr. Ruple telegraphed me to come and see his new patent, I went down expressly to see it, drove down.

CROSS-EXAMINATION.

X Q. 19. Were those the old Concord springs, or what was known as the Concord springs, that you sent to Mr. Ruple, or were they the common eliptic spring?

A. They were the double-sweep Concord spring.

X-Q. 20. Did he send for those springs by letter or telegraph?

A. I couldn't say. My recollection is it was by letter but I couldn't be positive.

X-Q. 21. Will you state how the Timkin spring of to-day is attached to the side bar?

A. By knuckle and clip.

X Q. 22. Was the first spring that you saw in possession of Mr Ruple attached to the side bar by a knuckle and clip, the same as the Timkin spring of to-day?

A. I think not, but I am not positive about that.

X Q. 23. Was the first spring you saw in the possession of Mr. Ruple bent up at the ends where it was attached to the side bar, or was it straight?

A. It was bent up a very little, but not where it was attached to the side bar, but three or four inches back; not so much as it is to-day.

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X Q. 24. You mean not so much as the Timkin spring is to-day?

A. Not so much as the Timkin spring is to-day.

X-Q. 25. How far did you ride in that buggy with Mr. Ruple?

A. Probably two or three miles.

X-Q. 26. Was it a single, three-quarter, or full-sized seated buggy?

A. It was a small sized buggy.

X-Q. 27. How many times did you ride in it at that time, if you recollect?

A. Only once.

X-Q. 28. Did it have the dash-board and top on it, or did it have no top? Was it a painted and finished buggy?

A. It was a painted buggy but I don't recollect about the top.

X-Q. 29. Do you know whether in other respects it was finished or not?

A. I do not.

X-Q. 30. Did you look at those springs critically and have them explained to you at that time?

A. I did.

X-Q. 31. Did you recognize the old Concord spring that you had sold Ruple in those springs?

A. The springs I rode on were not the Concord springs I sold to Mr. Ruple.

X-Q. 32. Do you know where that letter is Mr. Ruple wrote ordering those springs?

A. I think it's in ashes. We destroy our mail every six years.

X Q. 33. Now, what evidence have you that it was in April or May, 1877, that you went down to Pittston in answer to Mr. Ruple's telegram, to see his invention?

A. I have that as fresh in my mind as though it was yeiterday from the fact that in the fall of that year Mr. Timkin got his patent. I looked it all up and talked it over at that time with him, and advised him to continue making the spring.

X-Q. 34. What makes you say it was April or May if you

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have it so fresh in your mind? Why not state positively one or the other?

A. It was nice weather, yet it was cold; I had to wear an overcoat. If the Eagle Hotel register is in existence, the actual date can be found. I registered there with my boy and had dinner.

X Q. 35. Is that the main reason you say it was April or May, because it was cold? And because you had to wear an overcoat?

A. I know it was in the early spring of 1877.

X-Q. 36. Have you any other reason for thinking it was in the early spring of 1877 thau that it was cold weather?

A. In the winter or spring of 1878, made applications for his patent and told me Henry Timkin was ahead of him. I remember from those circumstances that it was in the spring before, I rode in the buggy.

X-Q. 37. But the question is what makes you think it was April or May? Might it not have been March or June?

A. I know from the condition of the weather it wasn't March; it may have been June; I wouldn't be too positive f that. It wasn't summer.

X-Q. 38. It's cold enough sometimes here to wear an overcoat in June sometimes?

A. Not very often.

X Q. 39. It does sometimes occur, does it not?

A. I don't remember ever wearing an overcoat in June.

X-Q. 40. Did you ever go to Pittston or Hazleton after that to look at Mr. Ruple's spring?

A. Not expressly, but I saw it in Hazleton afterwards.

X-Q. 41. Did he ever make a wagon for you with those springs on it?

A. No, sir.

X-Q. 42. Did you on the 16th day of May, 1877, know the date you sent Ruple those Concord springs?

A. I don't think I looked to see on any such date as May 16th, 1877.

X-Q. 43. The question is did you on May 16th, 1877, know the date that you sent Ruple the Concord springs spoken of?

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A. I wouldn't have known the date without looking on my books and I know I didn't look on May 16th, 1877.

X-Q. 44. When was it you looked on your books to give Olin the memorandum spoken of? Wasn't it before May 16th, 1877?

A. It was before. That was the only time I ever saw Mr. Olin before to-day.

X-Q. 45. How long was it before May 16th, 1887, that you looked on your books and gave Olin the memorandum of the date of selling Concord springs to Ruple?

A. From two to four weeks.

X-Q. 46. The date, then, of selling the Concord springs to Ruple must have been fresh in your memory on May 16th, 1887 (1887)?

A. It was not without referring to my books.

X-Q. 47. Then your memory as to dates is not very good, is it?

A. My memory on anything that interests me is, I think, as good as anybody's.

X Q. 48. Your memory now as to the date you sold the springs to Ruple is no better than it was May 16th, 1887, is it?

A. My memory is refreshed by the memorandum taken by Mr. Olin at that time, of the date, and read to me at the time it was made.

X-Q 49. Did you write to Mr. Timkin a letter May 16th, 1887 in which you stated as follows: "In the fall of 1876 I furnished a young man by the name of Ruple a pair of double sweep side syrings," and then did you, after writing that, interline the words "summer or" before the word "fall?"

A. I couldn't say. If I could see the letter I could tell whether I wrote it. I wrote Mr. Timkin's a hurried letter in answer to one I received from him.

X-Q. 50. Did you at that time know the date that you rode on Ruple's spring?

A. I did not.

X-Q. 51. When did you first find it out after that date?

A. I never gave any date, from the fact that I don't know the exact date.

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X-Q. 52. Did you on May 16th, 1887, know that you rode on Ruple's spring in April or May, 1877?

A. I knew that I rode in the early spring of 1877 on Ruple's spring.

X-Q. 53. Did you state that fact to Mr. Timkin in that letter?

A. I don't remember.

X-Q. 54. Did you state in that letter anything about the date or time you rode on Ruple's spring?

Objection. The letter is the best evidence and has not been submitted to the witness.

A. It is my recollection I did.

X-Q. 55. Well, do you recollect what it was?

Objection same as last.

A. It comes in my mind that I wrote him I had rode on the wagon in the spring of 1877.

Counsel for complainant hands the Notary a letter and asks him to put his name and seal on the back of it; counsel for defendants objects to all reference to the letter unless regularly introduced in evidence and properly identified.

Notary marks same as requested by complainants' attorney.

Counsel for complainant now hands the letter marked by the Notary to the witness and asks him:

X-Q. 56. Did you write that?

A. I wrote this letter, yes, sir.

X-Q. 57. Are those statements in that letter true or false?

A. I've answered that question in my answer to a former question.

X-Q. 58. Is that statement with regard to the time which you furnished Ruple with the springs true or false?

Objection. The form of the question is objected to as being indecent; the question is objected to as having been fully answered.

A. It is a misstatement by not being particular at the time of writing; I was writing hurriedly.

X-Q. 59. Didn't you take time and didn't you think, when you inserted the words "summer or" there in that letter?

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A. I did not. I probably wrote that letter in half a minute after I received his, and have never thought of it since.

X Q. 60. How did you come, in writing that letter, to interline the word "summer" before the word "fall," if you didn't think of the date?

A. How could I tell? I write probably a hundred letters a day.

X-Q. 61. Then you can't tell why you interlined the word "summer" fn that letter?

A. No, I couldn't.

X-Q. 62. Did you intend when you wrote that letter to state the date, as well as you remembered it then? or did you intend to deceive Mr. Timkin as to the date when you furnished Ruple with a double sweep spring?

A. I answered his letter very hurriedly and made a misstatement. The second part of the question is very impertinent and I wouldn't answer it.

X-Q. 63. Then you won't say whether you intended to deceive him or not?

A. If the attorney has any other questions to ask me about this matter I will answer them; but I am not going to sit here the whole afternoon to answer the same question over and over. I've no ill-will against Mr. Timkin, but my time is too valuable. I've answered that question already.

X Q. 64. Did you know at the time you wrote this letter, and did you recollect at that time that you had sent the double sweep side springs to Ruple in March, 1876?

Objection. The question has been repeatedly answered, and is therefore a needless waste of time. Also, for the further reason that it is utterly immaterial what he recollected then.

A. I did not; not until this morning, when I saw the memorandum I gave Mr. Olin from the original charge from the books.

X-Q. 65. Did you think at the time you wrote this letter that it was in the summer or fall of 1876 that you furnished the double sweep side springs to Ruple?

Objection last made is here repeated.

A. I gave the letter no particular thought. I wrote a friendly letter in answer to a very friendly letter from Mr.

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Timken. If I had known it was coming back here in a lawyer's hands I would have been very particular as to times and dates.

X-Q. 66. In answer to question four of your direct examination, which question is "please state when you first knew of such invention, and describe the spring as accurately as you can," you say "As near as I can get at it, it was some time in the spring of 1876; the 17th of March, 1876, he bought a pair of double sweep Concord springs;" did you mean to state in that answer that you knew of his invention in March, 1876, or did you mean to state that that was the date he bought the Concord springs of you?

A. I meant to state that that was the date he bought the springs. I knew nothing of what he wanted to do with the springs at the time he purchased them.

X Q. 67. Were you and Ruple both in that wagon, at the same time, when you tested that spring in April or May, 1877.

A. Yes, sir.

X-Q. 68. Do you know whether you had Ruple's horse in that buggy, or whether you had a livery horse?

A. I don't think he owned a horse. He drove the horse he had with him.

X-Q. 69. In that memorandum which you used on your direct examination, why did you have the phrase "October, 1877," on it for?

A. I expected to be asked what time the parties went into business that he was with last, Bantz & Linderman, I think.

X-Q. 70. Have you your books with you from which you took the memorandum you gave to Olin?

A. In the latter part of April or the early part of May our book-keeper and one of my partners, in moving into a new vault, destroyed all ledgers and original entries up to 1878 and all other papers to 1882.

X-Q. 71. Then the memorandum which you gave to Olin was not taken from any original entry of springs, at all, was it?

A. Yes, sir, it was.

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X-Q. 72. Was it taken from an original entry of springs at the time you gave it to Olin?

A. It was; within one minute from the time I took it from the original entry I gave it to Olin.

X Q. 73. Then as soon as you gave Olin the memorandum you destroyed all your books of original entry?

Objection. The testimony is not warranted by the testimony of the witness.

A. I didn't destroy them, and didn't know they were destroyed until this noon. I am very sorry, too.

X-Q. 74. What do you mean by saying that you took that memorandum, which you gave to Olin, from your book of original entries within a month of the time you gave it to him? Do you mean to say that Olin was not—— Question withdrawn.

X Q. 75. At the time you gave this memorandum to Mr. Olin from your books, did he read from the books or did you?

A. I took it from the books up stairs in the warehouse where they were stored, on a small slip of paper, and took it down to Mr. Olin in the office.

X-Q. 76. What did you give Olin that memorandum for?

A. He asked me for it and I gave it to him same as I would to any other person who asked me for a memorandum.

X-Q. 77. Did he tell you what he wanted it for?

A. Yes, sir. He stated his business soon as he came in the office.

X-Q. 78. Did he tell you he wanted you to testify in this case in relation to that date?

A. He read the whole memorandum to me and asked me if it was correct and said he might need my evidence at some later date.

X-Q. 79. Did he ask you to charge your memory with it?

A. He did not, nor I did not charge my memory with it.

X-Q. 80. Didn't you and he talk over the matter of Ruple's invention at that time?

A. We had a short talk.

X-Q. 81. Well, didn't you talk about the Ruple invention and the dates?

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A. Yes, we had a short talk about it.

X Q. 82. Now when you wrote this letter of May 16th, 1887, didn't the conversation with Olin, and the fact that you had given him a memorandum of the date of sending to Ruple two double sweep side springs enter your mind?

Objection. The subject of that letter has been fully gone into and worn threadbare.

A. No, sir, it did not.

X-Q. 83. Did you ever sell what is known as the Timken spring?

A. It is safe to say I have sold two thousand sets.

X-Q. 84. Did you pay any royalty on what you sold?

A. I expect so. I bought them from the licensed manufacturers as advertised by Mr. Timken.

X-Q. 85. What business are you in now?

A. Carriage hardware.

X Q. 75. What is the title of your firm?

A. Bittenbender & Company.

(Signed) J. M. KEMMERER.

WILLIAM BLUME, being produced, sworn and examined deposes and says:

Q. 1. State your name, age, residence and occupation.

A. My name is William Blume, my age is forty-nine years, residence Scranton, and occupation carriage builder.

Q. 2 How long have you been in your present business in Scranton.

A. Twenty-three years.

Q. 3. Are you acquainted with Daniel B. Ruple, who worked at the carriage business in Scranton and vicinity, formerly?

A. I have known him since 1868 or 1869. He learned his trade with me; commenced in 1869 or sometime before that.

Q. 4. Do you know of Mr. Ruple having made any invention or improvement in springs for side-bar vehicles either while he was in your employ or after he quit working for you?

A. I do.

Q. 5. Please describe the improvement and state as nearly as you can when it was made.

A. The spring was exactly the shape of a double sweep Concord, cut in half; they were put on cross-ways, the heavy end of the spring fastened to the two spring bars—wooden bars on which the body rested. The eye end of the spring was fastened to the side bars; the springs crossed each other under the body. They fastened to the side bars with the same spring shackle and clip used by J. B. Brewster & Co., of New York, or the same used by Timken now. That shackle is older than the spring. The first I seen—the first experiments he made was in 1876.

Q. 9. Please state the time in 1876 as near as you can, and the place where the experiment was made; and state what Ruple did at that time.

A. He worked for me in 1875 and left in the fall of 1875; previous to his leaving we had been talking about trying an experiment cutting Concord springs in two and putting them on crosswise to the side-bars. I was building a large number of Concord buggies at that time—the objection to the Concord buggy was that it hung too high—side-bar buggies were coming into general use and we saw the necessity of making a change, making our bodies lower. About that time he left and I being very busy failed to do anything in regard to it. The following month of February (1876) my factory burned down and I had to rebuild. I did not get started in business until May. He came up here sometime—couldn't say what month, it was early in the season, that same season, after I had rebuilt—and told me he had tried the experiment of putting those springs on crosswise as we had spoken of and it worked very well. He said the only objection there was was that the springs were shoving the side-bars, they were elongating too much. I suggested to him to have a set made with more bend on the ends, so as to take up the stretch. He told me he was building one of those buggies for some man in Hazleton. I told him to send me up a set of springs as soon as he got them in better shape and I would build a buggy and try them.

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Counsel for Complainant objects to all that part of above answer which purports to say what Ruple said, as being hearsay and irrelevant.

Q. 7. When, if ever, did you first see a set of springs such as you have described in use on a vehicle?

A, It was sometime in 1876; Ruple drove up here and stopped at the shop.

Q. 8. How many vehicles having springs of that kind under them had you seen from that time up to the beginning of 1878, if any?

A. That's the only one I seen except those I built myself.

Q. 9. When did you commence building vehicles having such springs?

A. In 1877.

Q. 10. Can you state the time in 1877 when you completed the first one of such vehicles?

A. I cannot. It was early in the season of 1877.

Q. 11. How many side-bar vehicles, having such cross springs, did you build in the year 1877?

A. I probably built fifteen or sixteen that summer.

Q. 12. From whom did you procure the springs?

A. I think I got the first two sets of Mr. Ruple, D. P. Ruple, the balance we made. I did not buy any of the springs until 1878; there was no way to get them; I didn't know of any place where to get them.

Q. 13, Where did you get them in 1878?

A. In the fall of 1878 an agent came here who represented to me that Mr. Timken had procured a patent on a spring that we were using and wanted to know how many we had builded. I asked him the date of his patent—told him that was the first intimation I had had of it; he told me and wanted me to pay him a royalty on the number of sets we had used. I declined to pay any royalty—I told him I had used those springs prior to the date of his patent. I remember we had some hard words about it; finally, before he left, he threatened suit. He left stating I would hear from him. About four or five weeks after, he came back there and wanted to know how many sets of springs I had on hand. I told

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him. He suggested that in the future I should buy the springs from a licensed spring maker; that I could get them as cheap as I could make them myself, or have them made. He gave me the names of a number of spring-makers who were licensed to make them. He said if I wouldn't make any more springs they wouldn't say anything about back royalty. I bought some springs then of Tomkinson Spring Company of Bridgeport, Connecticut. A short time after, Bittenbender's commenced keeping them in stock and we bought from them.

Q. 14. How did the first spring. which you say Mr. Ruple showed you in 1876, when he drove up to your shop, the two sets which you purchased from Ruple in 1877, and the ones you made and used yourself in the same year, compare with or differ from the Timken springs which you subsequently purchased from his, Timken's licensees, both as to shape of spring and manner of connecting the body and gear by the springs?

Objection. Question is leading.

A. The shape of springs—those I got from Ruple—were not as crooked on the end as the present Timken spring. Neither did the top plate project over the other plates on the heavy end. We kept giving them more bend on the ends, as we had customers complain of their crowding out the side-bars we saw the necessity of giving them more sweep. The manner of attaching the springs to tne body and the side bars was exactly the same. I can't see any difference.

CROSS-EXAMINATION.

X-Q. 1. When did Mr. Ruple leave your employ the last time?

A. In the fall of 1884.

X Q. 2. When did he go to Hazleton?

A. In 1875. late in the season. I think it was in the winter.

X Q. 3. What month in 1875?

A. I could not say.

X-Q. 4. Was it in November or December?

A. Can't say.

X-Q. 5. Was it in September or October?

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A. He left my employ towards the fall of 1875—could tell the month if I had my books here. He took a small shop across the way and was there two or three months and then sold out to other parties and went to Hazleton. I've no way of knowing how long he was in that shop. I know our shop burned in February, 1876, and that he had left us some time previous to that.

X-Q. 6. How long was it after your factory burned that he came back to talk about that spring?

A. He was here frequently during the fall and summer of 1876 and talked about it every time he was here, more or less.

X-Q. 7. The first you saw of his springs then was when he drove up to your shop with his buggy?

A. Yes, sir.

X-Q. 8. Now what makes you think that was in 1876?

A. Well it was some time before I commenced making any.

X-Q. 9. Did anybody else but you and Ruple see that spring at that time?

A. Yes, sir, some of the men in the shop came out and looked at it, but I can't remember who they were.

X-Q. 10. Do you know what month it was in 1876 that he drove up to your shop?

A. I do not. I have nothing to refresh my memory on that.

X-Q. 11. What time in 1877 did you commence building these vehicles, and what makes you think it was in 1877 you commenced?

A. Well, in the fall of 1876, while in New York, I bought a set of springs of Mr. Stiver—known as Stiver's patent spring. I also got a set of Whitney springs, which were also side-bar springs. I finished up buggies on those gears, and being on the look-out for something that was easier riding, I concluded to try some of those springs that Mr. Ruple and me had been talking about. I finished some buggies with those springs on and tested them all—that is those three kinds, the Stiver, Whitney and these, and found these—which is now the Timken spring—the easiest riding of the three,

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hence I didn't buy only that one set of Stiver springs, they were too expensive.

X-Q. 12. Do you know what month and year it was you bought the Stiver springs?

A. I know the year; it was in 1876. The first Whitney springs I saw was in Philadelphia, but I didn't put them to use until the fall. I saw the necessity of adopting some sort of side-bar spring for the following spring trade.

X-Q. 13. When did Mr. Ruple come back to work for you?

A. In 1878, some time in the summer. I can't tell exactly the month. It may have been the spring; I can't tell positively; I tried to find the time-book, it has been destroyed and I kept no record except in the time-book.

X-Q. 14. Who destroyed the time-book?

A. I couldn't say, I can't find it. We don't keep those old time-books. I don't suppose it was destroyed before last fall, when the shops were torn down and we took out a lot of stuff and burned it.

X-Q. 15. Were all your books relating to transactions between 1876 and 1878 destroyd?

A. No, sir.

X-Q. 16. Now, Mr. Blume, suppose Mr. Ruple said he made that first spring in 1877, April or May. and he swore to that fact, would that alter your opinion about his having brought it here in 1876?

A. Well, I'm telling you the impression I have. My impression is that it was in 1876. It was after the shops were re-built. Still if it was a matter of life and death, I would not swear to it.

X-Q. 17. It has been a long time ago to remember those things without positive data, hasn't it?

A. Yes, sir.

X-Q. 18. Is your recollection as to the time any better than it was in May 18th, 1887, when you wrote Mr. Timken?

A. No, sir, it is not.

X-Q. 19. Do you remember what you stated in that letter about the time?

A. No, sir, I kept no copy of it.

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X-Q. 20. Did you state in that letter that Mr. Ruple furnished you with the first spring in the fall of 1876 or early in the spring of 1877?.

A. I do not know what I stated in that letter. I was in a hurry when I answered, and stated my impressions at the time.

X-Q. 21. Did Ruple ever sell you a buggy with his new spring on it?

A No, sir.

X-Q. 22 Do you know what has become of that first buggy which you saw with Ruple's spring on it?

A. I do not. Complainant's counsel asks the Notary to put his name and seal on both sheets of the letter now handed him for the purpose of identifying it.

Same is done as requested.

Reference to the letter is objected to unless identified and shown to the witness.

Complainant's counsel hands the witness the letter just marked.

X Q. 23. Did you write that letter?

A. It is not my writing, but I dictated it to a young man in the office.

X-Q. 24. Did you sign the name, "W. Blume," to that letter?

A. No, sir, I dictated it. I had been away from home and just returned and he called my attention to his letter.

X Q. 25. Please look at the last line but one on the first page of that letter and tell me whom you meant by "he" in that line?

A. I meant D. P. Ruple. That's the first recollection I have of using those springs or applying springs in this manner, by taking Concord springs and cutting them in two.

X-Q. 26. In your direct examination you state "the first experiment he made was in 1876;" you mean by that, the buggy he brought to your shop?

A. No, sir; he was up here previous to that. The first buggy he had up here I didn't see. I heard of it.

X-Q. 27. That is what you mean by the first experiment?

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A. The first experiment, to my knowledge, was the buggy I saw. All previous to that was hearsay.

X-Q. 28. Do you know what month in 1878 you bought the first Timken springs?

A. I do not.

X-Q. 29. Do you recollect telling that agent when he came here the first time that Ruple had 300 or 400 sets of those springs on hand?

A. I don't think I told him so.

X Q. 30. Would you be apt to recollect if you had?

A. Yes, sir.

RE-DIRECT EXAMINATION.

Q. In your cross-examination your attention was called to the word "he" in next to last line of the first page of your letter to Mr. Timkin. Will you please carefully read that letter and explain what you meant by saying in your answer that "he" referred to D. P. Ruple?

A. I don't see any "he" in the next to the last line. That is "we."

RE-CROSS EXAMINATION.

X-Q. 1. Whom do you mean by "we," then?

A. I mean myself and the men in the shop. I didn't make them myself or I might have said "I." The "he" I thought you referred to is up at the top, in the third line; That's the way I understood it. The third or fourth line, I don't know which it is now.

X Q. 2. I believe you have a patent buggy and spring of your own, have you not?

A. Yes, sir.

(Signed) WILLIAM BLUME.

Hearing adjourned to Tuesday, June 13th, 1887, at 9 o'clock a. m. T. F. WELLS, Notary Public.

Now, Tuesday, June 13th, 1887, hearing resumed pursuant to adjournment.

Wm Blume

WILLIAM BLUME being re-called deposes and says:

Q. 1. You are the same William Blume who testified in this case yesterday, are you not?

Objection. By Complainant to the re-calling of the witness, as he was sworn to testify to the whole truth; and did so testify and the cross-examination was closed and he signed his depositions on the 13th day of June, 1887.

A. Yes, sir.

Q. 2. Have you, since you testified yesterday, examined your books or memoranda, in order to refresh your memory as to any of the parties to whom you sold side-bar vehicles having sectional cross-springs such as you have described as the invention of D. P. Ruple and made by yourself?

Objection. 1st: Question is leading. 2d: The books are the best evidence.

A. I have.

Q. 3. Please give the names of some of the parties to whom you sold some of the first vehicles having such springs.

Objection. The witness is swearing from books that he says he has recently looked at and that are not produced before the Notary, nor introduced in evidence.

A. I traded one buggy to Mr. A. L. Foote on the 12th day of April, 1887. I sold one to Doctor Wehlau that I had been using myself. I did not look that up for the date. He gave me a note for it and there is nothing on the books. I think it was the same year, but I wouldn't be positive. It was the first year Doctor Wehlau came here. He was a stranger to me at the time. I know of another I sold, come to think of it—to Rev. Mr. Hannah. I've forgot his first name. I sold him a horse and buggy at the same time. I think that was in 1877.

Q. 4. State, if you know. what became of each of the vehicles mentioned in your last answer.

A. I do not know what became of the Foote vehicles. The one Doctor Wehlau got he had an accident with, a runaway; he brought it to the shop to have it repaired. I traded him another buggy for it—for the remains of it—the wheels were worthless, they were broken up so, the body was badly damaged; it layed in our yard a long while and I finally sold

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it to Mr. B. F. Stark, of Wilkesbarre. Since then I do not know what has become of it.

Q. 5. Please state if after selling the vehicle to Mr. Foote you ever made any change in the springs, or furnished him different springs, either for use on one of the vehicles you say you sold him, or other vehicles?

A. I don't remember making any change only to insert brass bushings in the ends of the springs. I think I sold him one heavier set of springs, which he wanted for some special purpose.

Q. 6. Do you mean that you inserted brass bushings in the springs you sold him on the 12th of April and 12th of May, 1877?

Objection. The question is leading:

A. I could not say whether they were the same springs or not; the first springs we used we did not use brass bushings in until we heard complaints of cutting the bolts and rattling. We had some spring bushings made and commenced to use them in a number of old springs that had been used and come in when they heard this rattling.

Q. 7. Please examine the set of springs now placed before you and state, if you know, where they came from and on what vehicle, if any, they were last used.

A. I seen those springs on a buggy this morning, owned by Mr. Briegel.

Q. 8. State, if you know, by whom the springs were made and when these springs, or springs similar to them were first used on side-bar vehicles, to your knowledge.

Objection. The question calls for a conclusion of the witness and not a fact.

A. I do not know by whom they were made. I have seen springs and had springs made exactly like those in 1877.

Q. 9 What time in 1877?

A In the spring of 1877. I have seen D. B. Ruple have a set in 1876 very much like those.

Q. 10. How do these springs compare with or differ from the springs that were used upon the vehicles that you sold to Mr. Foote, Dr. Wehlau and Rev. Mr. Hannah that you have

Wm Blume

testified about, and other springs which you say you made in the spring and summer of 1877?

Objection. Leading, the springs being before the witness and with the question suggesting the answer.

A. I cannot see any difference in them. There may have been a difference in length and distance between the holes—bolt-holes.

Q. 11. Will you please examine the springs carefully, and state whether, in your opinion, they were made by hand out of new material, or out of springs intended for a different use or mode of attachment to the running gear, and if the latter state from what kind of springs they were made, in your opinion?

Objection. The question is, first, leading; second, it calls for an opinion of the witness on a subject he is not shown to be an expert on; third, it is calling for the opinion of the witness in relation to a matter that cannot be the subject of expert testimony; fourth, it is calling for a conclusion of the witness and not for a fact within his knowledge.

A. They appear to me to be made out of two different kinds of side-springs—Concord springs, called Concord springs.

Q. 12. Why do you think they were made of Concord springs? Are they the same, or different from the springs you made in the spring or summer of 1877 from Concord springs? And if they differ please point out specifically the differences, if any.

Objection. Same as above stated, last.

A. They are the same. I can't see any difference.

Q. 13. From whom did you purchase the side or Concord springs out of or from which your cross springs which you made in the spring and summer of 1877 were constructed?

A. I purchased some from the Townsend Spring Co. of Bridgeport, Connecticut, and probably some from other parties. I made some from old springs.

Q. 14. Your attention is particularly called to the brand on one of these pair of springs, which seems to be "Tomlinson Spring Co., Bridgeport," and you have also stated in your former deposition that you bought Timken springs from that

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company. Will you please state if the brand upon this pair of springs is the same as, or different from, the brand upon the Timken springs which you purchased from the Tomlinson Spring Company? And you may also state, if you know, whether the Tomlinson Spring Company had its brand upon all springs of whatever character that you purchased from said company during your dealings with them?

Objection. Leading.

A. The Tomlinson Spring Company, to the best of my recollection, always had their brand upon the springs made by them, while all Timken patent springs I have ever seen had the maker's name and trade-mark and a number stamped on them.

Q. 14. In what respect, if any, do these particular springs before you differ from the Timken springs which are and have been in use since you first knew of them?

A. They differ somewhat in shape; the top plate projects over the other plate some distance; the bolt holes are a uniform distance apart; the brass bushing on the ends is milled in or let in. This refers to the Timkin springs that I have used in the last seven or eight years. They may have made them with the top leaf cut off, but I have never seen any.

Hearing adjourned to Wednesday, June 15th, 1887, at 9 a. m. T. F. WELLS, Notary Public.

Now, June 15th, 1887, at 9 a. m., counsel for parties appear, and by consent of parties the taking of depositions continued before Geo. S. Horn, a Notary Public, in absence of T. F. Wells, Esq.

WILLIAM BLUME, witness on the stand.

CROSS EXAMINATION—By Wm. M. Eccles, Esq.

X-Q. 1. From whom did you buy your brass bushings which you used on your springs?

A. The Scranton Brass Works. I made wood patterns and took them down there and had them cast.

X-Q. 2. Did you have a spring press with which to shape springs in your shop any time in 1877?

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A. No, sir, no press. I do not understand what the gentleman means by a spring press.

X-Q. 3. Where did Doctor Wehlau live prior to coming here?

A. I d not know.

X-Q. 4. How long was it after he came here that you sold him those springs?

A. I do not know. I never seen him but two or three times before I sold him that buggy.

X-Q. 5. Where does he live now?

A. On Mulberry street in the city of Scranton.

X Q. 6. Where was your shop when Ruple came with the buggy which you say had his springs on?

A. On Lackawanna Avenue, west side, near seventh street.

X-Q. 7. Where did you next have your shop?

A. It remained there until last fall, with the exce tion of some additions tnat were made. It was torn down last fall.

X-Q. 8. When you made these sprin s in 1877 you say you made some of them from old springs; were those old springs which you used, any of them, eliptic springs?

A. I think not.

X-Q. 9. What were the old springs originally?

A. Side or Concord springs.

X-Q. 10. Did the old side or Concord springs, at that time, have their leaves connected by lugs and groves, or did they have them connected by flanges on the ends of the leaves or sides of the leaves?

A. Lugs and groves mostly.

X-Q. 11. When Mr. Timken's agent was here did you tell him to bring suit against you and Ruple for infringement?

A. I think I did.

X-Q. 12. Did you have any interest in the Ruple spring or Ruple invention at that ime?

A. I had no pecuniary interest in it.

X Q. 13. What interest did you have in it?

A. I felt at the time that I had a right to use the spring, as I was somewhat instrumental in originating the spring.

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although I felt that Ruple ought to be entitled to the credit for the invention, because he put it in practical use before I did.

X-Q. 14. What date was it you went to New York and bought the Stivers spring? Was it before or after you first saw Ruple's spring?

A. I do not know the date. I am under the impression it was after.

X-Q. 15. Ain't you very certain that it was after?

A. I am not.

X Q. 16. Did you bring the Stivers spring home with you or did you have it shipped to you?

A. I think I had it shipped.

X-Q. 17. Do you know by what express you had it shipped?

A. I do not

X-Q. 18. When you first saw the Ruple spring, when he drove down to your shop. you was satisfied it was a good spring, was you not?

A. I was not. I did not like the appearance of the spring; the blunt end showing on the side.

X-Q. 19. Was that all the objection you had to it at that time?

A. No, it was not. I noticed that when loaded it crowded out the side-bars too much.

X-Q. 20. Any other objection to it?

A. Those are the only objections I can remember now.

X-Q. 21. It struck you as a new device for springs and a very important one did it not. and as one that would not interfere with the Brewster?

A. No, it did not so strike me at that time, because I had seen the idea on paper some time previous.

X-Q. 22. Well, when you saw it on paper some time previous did it not strike you as being just the thing to beat Brewster with?

A. No, I do not think that I gave it a thought.

X-Q. 23. Well, did it not strike you as just being the spring to lower the body with?

A. Yes, sir.

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X-Q. 24. And you and Ruple had been working, you say, and talking about making a spring for that purpose? that is for the purpose of lowering the body?

A. Yes, sir.

X-Q. 25. And when Ruple came to your shop with the spring on a buggy and you saw that it was a suitable spring for to lower the body with, you afterwards for the purpose of getting a spring to lower the body with, went and bought the Stivers spring?

A. I did.

X-Q. 26. Where was Ruple living at the time he brought that buggy to your shop?

A. He claimed to be living at Hazleton.

X-Q. 27. Do you know as a matter of fact whether he was living at Hazleton or not?

A. What correspondence we had was directed to him at Hazleton and I received letters from him from Hazleton.

X-Q. 28. How far is it to Hazleton?

A. About forty miles, I think.

X-Q. 29. Did Ruple drive that buggy from Hazleton when he brought it to your shop?

A. I think he did.

X-Q. 30 When you began to make these springs in April or May, 1877, did the spring cause any excitement or talk among carriage makers and others of Scranton?

A. I think not; it may have later. I don't remember of any excitement first along.

X Q. 31. Didn't you and Ruple show it and talk of it as a new invention?

A. We may; he talked more about it than I did.

X-Q. 32. How large a place was Scranton at that time?

A. Scranton must have had thirty-five or forty thousand inhabitants at that time, perhaps more.

X-Q. 33. How long has this building been built that you are now in?

A. I have no pecuniary interest in this building, it has probably been built eight years; I could not say within five years of it.

X-Q. 34. You knew at the time it was built and was here when it was built?

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A. Yes, and I know it is here now.

X-Q. 35. At the time you made these springs that you say you made in 1877, did Mr. Gould, the carriage or wagon man, on Linden st., near Wyoming avenue, see them at that time?

A. I do not know.

X-Q. 36. How long has Mr. Gould been in the wagon business in Scranton?

A. I think about ten years.

X-Q. 36. How long has he been in the wagon business at his present place of business?

A. I do not know of his being in business at any other place.

X-Q. 37. You considered yourself as much the inventor of this spring as Mr. Ruple, did you not?

A. I did not.

X-Q. 38. Why did you not furnish him money to get a patent with as soon as you saw it was a good spring?

A. He did not ask me for any.

X-Q. 39. You came here to testify without being subpœnaed, did you not?

A. Yes, sir.

X Q. 40. Came at the solicitation of Mr. Olin?

A. Mr. Olin is a perfect stranger to me. I never saw him in my life, to my recollection, until he came here to see me with regard to this spring matter. He wanted to know whether I was willing to testify and tell what I knew of the spring, now called the Timkin spring, previous to the fall of 1877. I told him he was perfectly welcome to all I knew about it, if he could take my evidence here. I may have told him that I would not care to be inconvenienced to go away from home. Some time afterwards I received a letter from Mr. Gearhart, asking me if I would be at home on Monday, last Monday, at 9 o'clock, he would like to have me testify in the Timkin and Olin case, he called. I saw him personally the same day I received the letter and told him I would be at home on that day. He afterwards notified me to appear here at 9 o'clock on Monday morning.

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X Q. 41. Where are those books which you say you examined to refresh your memory?

A. The books in regard to the sales made to Mr. Foote are at my house.

X Q. 42. Why did you not bring it into court?

A. I have not been requested to do so. I can bring them here if the court desires it.

X Q. 43. These springs which you sold in 1877 were tempered in your own shop, were they not?

A. Most of them, yes, sir.

X Q. 44. Were any of them tempered out of your shop, and if so where?

A. I got one or two sets of Ruple; may have had some made by other parties, I do not recollect who.

RE-DIRECT EXAMINATION.

Q. 1. Did the springs you made in 1877 have their blunt ends showing from the side of the vehicle?

A. Yes, sir.

Q. 2. Were they cut off square, or were they beveled the same as the springs before you?

Objected to as leading.

A. They were beveled mostly. We sometimes let them in the spring bars so as to not have them appear too heavy.

Q. 3. How long previous to the time you first saw the Ruple spring on his buggy was it that you had seen the same idea represented on paper?

A. It may have been six months or it may have been a year—somewhere about that time—about the time Ruple went to Hazleton.

Q. 4. When you saw that representation on paper that you testified about, did it convey the same idea to your mind that the full-sized spring did when you saw it on the Ruple buggy, or did the spring appear different from what you supposed the sketch represented?

Objected to as leading and as calling for a conclusion and not for facts.

A. No, I think the spring represented the sketch.

Q. 5. Would a mechanic skilled in the art of spring or

Wm. Blume

carriage making, in your opinion, be enabled to make springs such as Ruple had on his first buggy that he showed you, or the springs now before you from an examination of a representation of springs you saw on paper previous to the time you saw the first Ruple springs, and from the conversations yourself and Ruple had about the springs at the time you saw the paper representation?

Objected to as leading, and for the further reason that it calls for a conclusion or opinion by the witness not warranted in law, and for the further reason that the sketch is not accounted for nor presented.

A. Yes, sir.

Counsel for defendant herewith offers in evidence the springs referred to in the deposition of this witness, and requests the officer to mark the same "Defendant's exhibit, 'Briegel Wagon Springs.'"

RE-CROSS EXAMINATION.

X-Q. 1. Then if Ruple went to Hazleton in the fall of 1876, you must have seen this sketch you speak of in the fall or winter of 1876 or 1877?

A. Yes, sir, if he went to Hazleton in the fall of 1876.

X Q. 2. How large was this sketch you speak of?

A. It might have been three or four inches long. We often make sketches on ordinary pieces of paper, of any new idea. Do not make a working draft, do not make a drawing to scale until ready to put it in execution.

X-Q. 3. This sketch was simply a rough pencil sketch, was it not?

A. That is all.

X-Q. 4. Did it show any shackles?

A. No, sir.

X-Q. 5. Did it show any side-bars?

A. No, sir.

X-Q. 6. Did it show any body?

A. No, sir.

All the re-direct examination is objected to by counsel for plaintiff, for the reason that it does not grow out of the cross-examinatisn.

(Signed) WILLIAM BLUME.

John Briegel

Adjourned to meet this day at 1:30 p. m.

GEO. S. HORN, Commissioner.

Now, June 15th, 1887, at 1:30 p. m., counsel for parties appear pursuant to adjournment.

JOHN BRIEGEL, being produced, sworn and examined on part of defendant, says:

Plaintiff objects to the witness being sworn or testifying fer the reason that his name is not set out in the answer or amended answer of the defendant.

Q 1. State your name, age, residence and occupation.

A. My name is John Briegel, am thirty-seven years old reside at Scranton and am a merchant or dealer in paints.

Q. 2. How long have you resided in Scranton?

A. Fifteen years.

Q. 3. Please examine defendant's "Exhibit, Briegel's Wagon Springs," now shown you, and state whether you have ever seen these particular springs before.

A. Oh, yes, I have seen them for the last six years, off and on.

Q. 4. State where you saw them and what they were used for, since you first saw them.

A. Why, I used them on my buggy.

Q. 5. From what time did you use them on your buggy, when were they removed from your buggy and for what purpose were they removed?

A. I first used them in the latter part of May, 1881, that's when I got the buggy; they were removed yesterday, or June 14th, 1887, I supposed to be used as evidence.

Q. 6. When did you buy that buggy and from whom did you buy it?

A. I bought the buggy from O. T. Bullard, in 1881, some time in May, 1881.

Q. 7. Was it a new or a second-hand buggy at the time you purchased it from Mr. Bullard, in May, 1881?

A. It was a second hand buggy.

Q. 8. Was that buggy with these springs on it in your possession from the time you purchased it in May, 1881, up to the time the springs were removed from it yesterday?

A. Yes, sir.

John Briegel

CROSS-EXAMINATION BY COUNSEL FOR PLAINTIFF.

X-Q. 1. Who put those blocks under the springs?

A. E. H. Culver.

X-Q. 2. Where does he live?

A. Scranton.

X-Q. 3. Whereabouts in Scranton?

A. He does business on Vine street in Scranton.

X-Q. 4. Whereabouts on Vine street, give the number.

A. I can't do it; it's between Penn and Wyoming avenues.

X-Q. 5. When did he put those blocks under? I mean, by the blocks, the wedged shape pieces of wood.

A. I think he put them under about two weeks ago, it might only be a week.

X-Q. 6. How were the springs fastened on the spring bar before these wedge-shaped blocks were put under? Did they have any blocks under them before these were put under them?

A. Not as I know of.

X-Q. 7. What was the purpose of putting these under?

A. To strengthen the springs, I suppose, to make them carry better.

X-Q. 8 They were put under at your solicitation, were they not?

A. Yes; well it was done in order to raise the spring so the body would not sag down and I left it to Mr. Culver to fix it so they were strong. The springs got weak and when there was more than one or two got in the buggy they went down.

X-Q. 9. How were these springs attached to the sidebars?

A. Why they were attached with a bolt.

X-Q. 10. Was either one of the springs ever broken since you had them?

A. Not as I remember.

X-Q. 11. You say it was a second-hand buggy when you bought it; you don't know how old it was of your own knowledge?

A. It was a second-hand buggy; I do not know how old it was.

A. L. Foote

X-Q. 12. How much did Mr. Olin pay you for this buggy?

A. He replaced the springs by another set of springs.

X-Q. 13. Did this wagon which these springs came off of have a straight reach running from the hind axle to the bolster or head-block?

A. In the centre—no, sir.

(Signed) JOHN BRIEGEL.

A. L. FOOTE being produced, sworn and examined on part of defendant, says:

The plaintiff objects to the witness being sworn or testifying for the reason that his name is not set out in the answer, or the amended answer.

Q. 1. State your name, age, residence and occupation?

A. My name is A. L. Foote, age forty-seven years, reside at Scranton, occupation liveryman.

Q. 2. How long have you lived in Scranton and been engaged in your present business here?

A. I have lived in Scranton about twenty-six years, and have been engaged in my present business about twenty-two years.

Q. 3. Please examine the pair of springs or set of springs, defendant's exhibit "Briegel Wagon Springs," and state if you have ever seen this identical set of springs or springs similar to them before?

A. I can't swear that I have seen this identical set of springs, because I did not take them from his wagon, but I have seen springs similar to those that looked like them.

Q. 4. State when and where you first saw springs similar to these.

A. The first springs I ever saw like these was at Blume's carriage shop in Scranton. The first I ever saw was in 1876.

Q. 5. By whom were these springs you saw in 1876 at Mr. Blume's shop, made or invented, if you know?

Question objected to as calling for a conclusion and not a fact.

A. A man by the name of Ruple claimed the spring as his invention.

Q. 6. How frequently have you seen springs of this

R. L. Storte

kind since the time you saw the first ones in Mr. Blume's factory in 1876?

A. I saw them for a year or two, or two or three years after, two years I should say, most every day frequently.

Q. 7. Where did you see them; by whom were they used?

A. I had two wagons myself with these springs on.

Q. 8. From whom did you purchase those wagons, and state the time when you purchased each of them as nearly as you can.

A. I think I got the first one in the fall of 1876; the second one in the spring of 1877, in May. I purchased them from William Blume.

Q. 9. Please state if you can what became of each of the buggys having springs similar to these which you say you purchased from Mr. Blume.

A. The one, I can't tell you; but one I let Bullard have, a wagon-maker.

Q. 10. What became of the one you let Bullard have?

A. The last I knew of that wagon it was in the possession of Mr. Briegel. I saw Briegel with it.

Q. 11. Can you state the time when you let Mr. Bullard have that wagon?

A. Not positively.

Q. 12. State it as nearly as you can.

A. I think in '79 or '80.

Q. 13. Was that wagon changed in any way that you know of, so far as the springs were concerned from the time you got it from Mr. Blume until you let Mr. Bullard have it?

A. No, sir.

Q. 14. When did you last see the other buggy or vehicle which had a set of springs on like these?

A. I can't say that, how long it has been since I let it go. I don't have any recollection where it went to or who I sold it to.

Q. 15. Do you or not know of other vehicles being used about Scranton having springs of this character upon them at or about the time you purchased or were using your vehicles which you say you purchased from Mr. Blume?

A. L. Root

Objected to as leading.

A. Not at the present time I don't. At that time there were several of them. I do know of one wagon, still I don't know where to put my hands on it; I saw it recently. I am satisfied it is here in town.

Q. 16. You say that Mr. Ruple claimed to be the inventor of these springs; did you hear Mr. Ruple make such claim himself or was it simply a general report about Scranton that he did so claim?

Objected to as leading. Second, as hearsay; third, as incompetent and irrelevant.

A. I heard Ruple say it himself.

Q. 17. Are you familiar with what is now known as the Timken spring?

A. Why yes, somewhat. I deal in them, deal in wagons and I occasionally have a set of these springs.

Q. 18. When did you first become familiar with the Timken spring, manufactured and sold by his licensees?

A. I can't say what date.

Q. 19. About how long after you had become familiar with the springs made by Mr. Blume and used on the wagons he sold to you was it that you learned or knew of the Timken spring being on the market?

Objected to as irrelevant.

A. I can't say how long; I think it was about two or three years.

CROSS-EXAMINATION BY PLAINTIFF'S COUNSEL.

X-Q. 1. What year was you born in?

A. 1839 (1839).

X-Q. 2. What year was the strike here in Scranton?

I don't just remember.

X-Q. 3. Can you approximate the year?

A. Not at this minute. I could by looking it up.

X-Q. 4. Was it the year after the Centennial or the year before the Centennial?

A. Which strike do you mean?

X-Q. 5. I mean the great strike when you had the riot?

A. I don't just remember.

X-Q. 6. Do you know what year the Centennial was in?

A. L. Boote

A. '86

X-Q. 7. Do you know what year the war closed?

A. No I don't just now. I couldn't say.

X-Q. 8. Or what year the war broke out?

A. No, I don't remember.

X-Q. 9. Do you know what year or month Sumpter was fired on?

A. No, sir, I don't remember.

X-Q. 10. Do you know when Abraham Lincoln was assassinated?

A. I can't just tell you the date, the day.

X-Q. 11. Can you give me the year?

A. I don't know as I can.

X-Q. 12. Can you tell me the time Grant was elected President the first time?

A. No.

X-Q. 13. You have a good many buggies in your establishment, can you give me the date when you purchased any of those buggies except the one you spoke of in your direct examination?

A. I bought perhaps a half dozen in 1886 and ten or fifteen in 1887.

X-Q. 14. How many did you buy in 1878?

A. I could not tell you that.

X-Q. 15. Can you tell me anybody you bought of in 1878?

A. I couldn't without referring back to my memorandums and books.

X-Q. 16. How many did you buy in 1879?

A. I could not say.

X-Q. 17. Can you give me the name of a single man you bought a buggy of in 1879?

A. No, sir.

X-Q. 18. How many did you buy in 1880?

A. I couldn't say.

This line of cross-examination is objected to by counsel for defendant.

X-Q. 19. Can you give me the name of a single man that you bought a buggy of in 1880?

A. No, sir.

A. L. Poote

X Q. 20. Can you tell me how many buggies you bought in 1881?

A. No, sir.

X-Q. 21. Can you give me the name of a single man you bought a buggy of in 1881?

A. No, sir.

X-Q. 22. Can you tell me how many buggies you sold in 1882 or 1883?

A. No, sir.

X-Q. 23. Can you give me the name of a single man that you bought or sold a buggy to in 1882 or 1883.

A. No, sir.

X Q. 24. Can you tell me how many buggies you bought in 1884 or 1885?

A. I can't tell you from sitting here. I might be able to tell you all of those things if I had to and looked it up.

X-Q. 25. Can you tell me the name of a single man that you bought or sold a buggy to in 1884 or 1885?

A. I don't remember.

X-Q. 26. Do you know when this court-house was built over here?

A. Within the last four or five years.

X-Q. 27. Which is it, the last four, or five years?

A. It has been finished about two years.

X-Q. 28. A year or so does not make much difference in your estimation of dates, does it?

Objected to as improper.

A. It might in some things and might not.

X-Q. 29. In what things might it make a difference and in what things might it not?

A. The questions he is asking me now, I don't think it makes much difference.

X-Q. 30. Do you know when you moved in your present place of business?

A. Yes, sir.

X-Q. 31. When was it?

A. The first of last February.

X-Q. 32. Did you have any talk with anybody about these dates before you came here to testify; I mean the dates about your buying and selling this buggy?

A I did, yes, sir.

X-Q. 33. Who was it?

A. I was talking with Mr. Blume about it yesterday and Mr. Bullard.

X-Q. 34. And they both told you it was in 1876 and 1877 that you bought those buggies?

A. No, sir; Mr. Blume thought in 1877 there was one bought, in the spring of 1877. He has the account of when I got one in 1877, the spring of 1877.

X-Q. 35. Then you are swearing as to that one from what he told you?

The assertion is objected to as not warranted by the witness's testimony.

A. No, sir, not altogether.

X-Q. 36. You are relying on your own memory, are you?

A. Principally.

X Q. 37. You are relying wholly on your own memory as to when you bought the first one, are you not?

A. Yes, sir.

X-Q. 38. Did Blume tell you when his factory burned down?

A. No.

X Q. 39. Do you know when it did burn down?

A. I don't remember what year.

X-Q. 40. Do you know when Ruple went to Hazleton?

A. No.

X-Q. 41. Remember when he returned from Hazleton?

A No.

X-Q. 42. Do you remember whether he was in Blume's shop when you bought the buggies of Blume?

A. I am not positive; I think he was his foreman at the time.

X-Q. 43. Well, about all you remember is tha you bought that buggy in 1876?

A. At that time Blume did all my work in wagon business, and I bought about the first wagons that he manufactured with these springs.

F. O. Bullard

X-Q. 44. Are you sure that Ruple was his foreman when you bought those wagons of him?

A. At the time I bought them or just previous, just before, he was showing me those springs—that is Ruple was, and was very anxious that I should try them, and I got those two wagons. I am not positive that he was foreman, I think he was.

X Q. 45. He was employed around the shop at the time in some capacity, wasn't he?

A. I think he spent most of the time with that spring; what else he did I am not able say.

X-Q. 46. He showed you the spring at Blume's shop and they were put on buggies?

Question withdrawn.

RE-DIRECT EXAMINATION.

Q. 1. Where was your place of business at the time you purchased those buggies of Mr. Blume?

Objected to because it does not grow out of the cross-examination.

A. In Scranton, on Franklin avenue, in the Luzerne House, and livery in the rear.

Q. 2. What time did you move from that place?

A. I think in 1879 or 1880.

(Signed) A. L. FOOTE.

F. O. BULLARD being produced, sworn and examined on part of the defendants, says:

Plaintiff objects to the witness bein sworn or testifying for the reason that his name is not set out in the original answer or the amended answer.

Q. 1. State your name, age, place of residence and occution.

A. My name is F. O. Bullard, age nearly 48 years, reside in Scranton, and occupation is wagon maker.

Q. 2. How long have you lived in Scranton?

A. Fifteen years.

Q. 3. Please examine the set of springs now before you, the defendant's exhibit, "Briegel's set of wagon springs," and

D. O. Bullard

state if you know what they are, and when if ever you saw them before.

A. Yes, I seen them before; yes, sir, some seven or eight years ago. I don't know what he wants me to answer; I call them cross springs for a buggy.

Q. 4. When did you last see these springs before to-day, and where were they when you saw them?

A. They were on Mr. Briegel's buggy; they were down in Mr. Culver's shop.

Q. 5. How long had they been on Mr. Briegel's buggy to your knowledge?

A. To the best of my knowledge they had been there about seven years.

Q. 6. Where were they before they were placed on Mr. Briegel's buggy?

A. I had them.

Q. 7. From whom did Mr. Briegel purchase his buggy that had these springs on?

A. From me.

Q. 8. How long had you had that buggy with these springs before you sold it to Mr. Briegel?

A. I should judge about a year.

Q. 9. Where did you get the buggy with these springs?

A. I got it of Mr. Foote, Mr. A. L. Foote.

Q. 10. Do you know how long Mr. Foote had the buggy before you got it from him?

A. I should judge a couple of years, anyhow; two years, if not more.

Q. 11. When were these springs removed from Mr. Briegel's buggy and by whom removed?

A. Yesterday, I took them off myself.

Q. 12. When did you first see cross springs for buggies like these springs now before you, and where did you see them?

A. I can't set a date when I first saw one; it was in Scranton here first.

Q. 13. Who showed you the first one you ever saw?

A. Mr. Ruple—Dan Ruple.

Q 14. State what he said at the time he showed you the

E. O. Bullard

springs and if he gave you any explanation as to how they were to be used; please state what he said or give the substance of the conversation as nearly as you can?

Objected to as leading and hearsay.

A. Well, he showed me a pattern of the shape and told me how he intended to hang them on the bars. There was no other explanation of it.

Q. 15. Can you fix about the time when that was?

A. He was working for Mr. Blume. I think it must have been about 1876. I was working at Gilhool's at the time.

Q. 16. Was this before Mr. Ruple went to Hazleton or after his return from Hazleton?

Objected to as cross-examination of his own witness.

A. I think it was before; I would not be positive.

Q. 17. In what building or place was it that Mr. Ruple showed you a wooden pattern of a spring like these and told you how he was going to attach them to the side-bars?

Objected to as assuming a state of facts not yet proven and as leading and putting in the witness's mouth that which he has never said.

A. In Bittenbender's hardware store. That's the place I first saw it.

Q. 18. Did you have any conversation with Mr. Ruple after his return from Hazleton with relation to these springs?

A. Yes, I spoke to him about it and asked him how he made out with them.

Objected to as hearsay.

Q. 19. What reply did he make?

Objected to as hear say.

A. He told me he did not do much with it.

Q. 20. Did he give any reason why he did not do much with it?

Objected to as hearsay and leading.

A. He did not tell me why.

Q. 21. Do you know who was the original and first inventor of this kind of a spring for side-bar buggies?

Objected to as calling for a conclusion of law.

A. I don't, except that Ruple showed me was the first I ever saw.

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CROSS-EXAMINATION BY PLAINTIFF'S COUNSEL.

X-Q. 1. How long did Ruple stay at Hazleton?

A. I could not tell. I should judge a little over a year, anyhow.

X-Q. 2. You knew at the time but don't remember now?

A. I didn't know how long he was gone.

X-Q. 3. Do you know the date that he left?

A. No, sir.

X-Q. 4. Do you know the year that he left for Hazleton?

A. I think it was in 1876.

X-Q. 5. Why do you say you think it was in 1876?

A. Because that is the best of my knowledge of the date.

X-Q. 6. On what do you base that knowledge?

A. At the time I was working at Gilhool's he left there. I was working there in 1876.

X-Q. 7. When did you commence working for Gilhool and when did you quit?

A. I commenced there in the fall of 1873 and quit when the shop burned down. I forget when that was; in 1877 I think it was.

X-Q. 8. Was it in the fall of 1876 he went to Hazleton?

A. I could not tell what time of the year it was.

X-Q. 9. Is there any other fact that makes you think he went in 1876 except that you were working at Gilhool's?

A. I don't know of any other instance.

X-Q. 10. Then for all you know he may have gone to Hazleton in 1877, may he not?

A. I don't think it was as late as that.

X-Q. 11. You was working at Gilhool's in 1877, wasn't you?

A. I worked some for Gilhool after he built a new shop. I don't remember just what time it was, but not as a steady man. I done an occasional job for him.

X-Q. 12. On what street was the new shop built?

A. Gilhool's was on Lackawanna avenue.

X-Q. 13. What is the number of it?

A. I can't remember, I guess it is 32. He has two lots there.

X-Q. 14. Who occupies it now?

D. O. Bullard

A. Gilhool Brothers.

X Q. 15. Has Gilhool occupied it ever since it was built?

A. Yes, sir.

X-Q. 16. You was asked when you ever saw these springs before you and you say seven or eight years ago; which was it, seven or eight?

A. I would not be sure, but I think it was eight years; as much as that, anyhow.

X-Q. 17. Have you any more reason to think it was eight than you have to think it was seven years.

A. Yes, I used to use the wagon when Mr. Foote had it.

X-Q. 18. Is that all the reason that makes you think it was eight and not seven?

A. I think that is the only reason.

X Q. 19. You don't know when Foote bought it, do you? you did not see him buy it did you?

A. No.

X-Q. 20. How long did Foote own it, if you know of your own knowledge?

A. I could not tell.

X-Q. 21. Why did you say you should judge two years or more if you don't know, was you just simply guessing at the time?

A. Because I used the wagon often. I used to hire horses and wagons of Mr. Foote before I got it.

X-Q. 22. Is that all the reason you have for judging it was a couple of years, two years, that Foote owned it?

A. Yes that was the only thing I judge from.

X-Q. 23. Can you tell me how often you used it when Foote had it?

A. I can't tell how many times. I used to take it to Olyphant and get other wagons and hitch them on behind.

X Q. 24. Well, now, the truth of the matter is you can't tell with any certainty how long Foote had that buggy, can you?

A. No, sir.

X Q. 25. He might have had it one year and he might have had it five years for all you know?

A. I think he had it over one year.

W. O. Bullard.

X-Q. 26. Well, what makes you think he had it more than one year?

A. I saw it there in the barn often and used it often before I got it.

X-Q. 27. Is that all the reason?

A. That's all that I can reckon on.

X-Q. 28. You could see it in the barn often and used it often in one year couldn't you?

A. I could, I suppose. Yes.

X-Q. 29. What year was it that bought it?

A. I think it was in 1880, I won't be sure; it might have been earlier.

X-Q. 30. And it might have been later, might it not?

A. No.

X-Q. 31. You don't think it was any earlier than 1880?

A. It might have been earlier; it was not later.

X-Q. 32. The question is do you think it was earlier?

A. I think it was.

X-Q. 33. What makes you think it was earlier?

A. I don't know as I have any reason except the time that I left Briegel have it after the time I got it.

X-Q. 34. Now if you think that it was earlier than 1880 that you bought that wagon, why did you just say that you bought it in 1880?

A. I did not say I was sure of it. I said it was not any later than that and it might have been earlier.

X Q. 35. Do you think that you might have bought that buggy in 1877?

A. No, sir.

X-Q. 36. Well, why not?

A. I don't think I done any work for Foote at that time.

X-Q. 37. How do you know it was not later than 1880 that you bought that buggy?

A. I did not say that I knew it was.

X-Q. 38. Do you know the date that Briegel bought these springs of you?

A. I don't remember now.

X-Q. 39. Can you give me the year that he bought them?

A. I can't tell exactly.

G. O. Bullard

X-Q. 40. What kind of a wagon were those springs on which Mr. Ruple showed you first, or was it a wagon or a buggy?

A. It was not on any wagon; he showed me the pattern of it.

X-Q. 41. Was the pattern a sketch on paper?

A. No, it was a wooden pattern.

X-Q. 42. How long was it?

A. The same size and shape as a spring

X-Q. 43. Was it the same size and shape as this spring?

A. I should judge that it was.

X-Q. 44. I don't ask you what you judge, but was it or not?

A. It might not be exactly that shape but it was as near as you could look at anything and determine.

X Q. 45. Was it bent up at the end like that?

A. Yes.

X-Q. 46. Did it have a shackle attached to it?

A. No, it was just a wooden pattern of the spring and shape.

X-Q. 47. The first one you saw attached to a buggy then was the one attached to the buggy that you bought of Foote, was it not?

A. I seen them springs on wagons before I saw that kind of springs on wagons and I can't tell whether I saw this one first or some other one.

X-Q. 48. They were at Blume's shops were they not?

A. I don't know whether that was where I first saw them or somewhere else. I can't tell.

X-Q. 49. When Ruple came back from Hazleton you asked him what he had done with his spring, and he said he had not done anything with it? had you seen a spring put up on a buggy like that before he came back from Hazleton?

A. I couldn't tell. I might and might not. I don't remember the date.

X-Q. 50. Did you have any conversation with Briegel or Foote about these dates when you bought and sold that buggy?

A. I have not with Briegel. I spoke with Foote yesterday morning, but nothing about the time.

392 STATE OF PENNSYLVANIA, } ss:
County of Lackawanna, }

I, T. F. Wells, a notary public within and for said county and State, do hereby certify that the foregoing depositions of J. M. Kemmerer, William Blume, John Briegel, A. T. Foote, F. O. Bullard on behalf of defendants were taken before me (except a part of the deposition of Wm. Blume and the deposition of John Briegel, A. T. Foote, F. O. Bullard, who, by consent of parties, gave their depositions before George S. Horn, Esq., notary public), pursuant to the annexed notice, at the time and place therein set forth; that said witnesses were duly sworn and their testimony reduced to writing in their presence; that the defendants were present, by their counsel, Geo. J. Murray, Esq., and complainant, by his counsel, W. M. Eccles, Esq., as therein appears; and I do further certify that I am not attorney, counsel, nor in any way related to either of the parties in said deposition or caption names and am in nowise interested in the result of the suit.

393–421 In testimony whereof I have hereunto set my hand & notarial seal this 16th day of June, A. D. 1887.

T. F. WELLS,
Notary Public.

[SEAL.]

And afterwards, to wit, on the 11th day of July, A. D. 1887, the following deposition was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Deposition of Casper Weigand.

this 17th day of June, A. D. 1887. Present George J. Murray, Esq., on behalf of defendants and Wm. M. Eccles, Esq., on behalf complainant.

CASPER WEIGAND, produced, sworn and examined in behalf of defendants, doth depose and say:

The regular form of oath was put to witness; he then kissed the book and answered: I understand the oath. I acknowledge the oath as being true, being in my handwriting.

Q. 1. Do you object or refuse to be sworn to tell the truth inquired about?

asked him what he had done with his spring, and he said he had not done anything with it? had you seen a spring put up on a buggy like that before he came back from Hazleton?

A. I couldn't tell. I might and might not. I don't remember the date.

X-Q 50. Did you have any conversation with Briegel or Foote about these dates when you bought and sold that buggy?

A. I have not with Briegel. I spoke with Foote yesterday morning, but nothing about the time.

Caspar Weigand

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X-Q. 51. Was there much talk about this invention among carriage men at the time that Blume commenced to make them first?

A. Yes, there was some talk about it.

X-Q. 52. It created considerable excitement among the carriage fraternity, did it not?

A. I don't know that it created much excitement, it was talked about and looked at.

X-Q. 53. Did Ruple bring a wagon or buggy with these springs on it from Hazleton while he was working there and exhibit it at Blume s shop, to your knowledge?

A. Not that I remember of. He might.

X-Q. 54. You were intimate with Ruple were you not at that time?

A. Yes.

X-Q. 55. Are you willing to swear that those are the identical springs that were on the Foote wagon that you bought of Foote and sold to Briegel?

A. I think they are; am pretty sure of it. They were under my observation nearly all the time.

(Signed) F. O. BULLARD.

Hearing closed. T. F. WELLS, Notary Public.

United States Circuit Court, Southern District of Ohio. W. D.

HENRY TIMKEN vs. T. D. OLIN, et al.

Depositions taken on behalf of defendants before me, Philip V. Weaver, a Notary Public for the State of Pennsylvania pursuant to agreement of parties at Hazleton, Pennsylvania, this 17th day of June, A. D. 1887. Present George J. Murray, Esq., on behalf of defendants and Wm.M.Eccles, Esq., on behalf complainant.

CASPER WEIGAND, produced, sworn and examined in behalf of defendants, doth depose and say:

The regular form of oath was put to witness; he then kissed the book and answered: I understand the oath. I ac knowledge the oath as being true, being in my handwriting.

Q. 1. Do you object or refuse to be sworn to tell the truth inquired about?

Caspar Wiegand

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Objected to. Because it does not embody the oath required by each witness to be taken and because the witness has repeatedly answered that he would not take the oath as repeated to him by the Notary and the complainant further objects to the witness being sworn and testifying because his name is not set up in the amended answer of the defendants.

Defendant's counsel stated that the witness has said he will tell the truth in the matter here, but does not want to go through the form for fear he will be taken away to court, and asks the officer to again fully explain to the witness the oath to the witness and inform him that there is no intention of taking his testimony any place else but here in this office.

Counsel for complainant states that that is not half of what the witness stated when the oath was propounded to him by the officer, but that he further stated that he would not take the oath, that there was his book and that was all he knew about it, and further stated that he had no religious scruples against taking an oath, but that he had never taken one in his life and wouldn't take it now; that he came here simply as an accommodation and there was his book and *he wouldn't swear at all.*

Witness finally sworn and stated that his former objection is from misunderstanding.

Complainant's counsel states and asks the Notary to state on the record that the witness said finally before he took the last oath that he would not swear to state anything but what was in that book and that he did not state as the Notary has stated above, at the request of the defendant's counsel, that his "former objection is from a misunderstanding," and the Notary put the words in quotation as the counsel for defendants requested him, and that they are not put down as an act of the Notary, but as the composition an assertion of defendant's counsel, and request the Notary to state in the record that the words in quotation were put in the record by him because the counsel for the defendant requested him to put them in and not because the Notary knew them to be true.

Counsel for complainant further requests the Notary to state in the record that the witness at first positively refused to be sworn—that he refused at least three or four

Caspar Wiegand
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times to take the oath, but finally, being threatened by the defendant's counsel that he would take him before the U. S. court he did what he did, namely acquiesced the oath.

Defendant's counsel says that the above statement is not warranted by the facts and asks the officer when making his statement to state whether or not the witness did not say that he would voluntarily go down to Scranton before the U. S. court and be regularly sworn and give his testimony if his expenses would be paid; said he would go down with us to-day if we wanted him.

NOTE.

The Notary, in answer to request of counsel, makes the following statement, to-wit:

That the witness, Casper Wiegand, refused to take the oath because, as he said, "it was no use—he could the truth without, and did not want to have anything to do with the matter, for he might at some time be compelled to appear before a United States Court as a witness.

Counsel for defendants assured him that if he were sworn and examined here he would not be compelled to go before the court. He said that it was a misunderstanding on his part and that he would be sworn, but that he could not swear to anything beyond what was in his book, because of the length of time.

The words in quotations were put in the record at the suggestion of the counsel for defendants and are substantially correct.

The expression "that he (witness) was ready and willing to go to Scranton at any time if his expenses were paid" may have been used but was not heard by the Notary.

PHILIP V. WEAVER, Notary Public.

Q. 2. State your name, age, residence and occupation?

A. Casper W. Wiegand and 51 years old, live corner of Laurel and Chestnut, Hazleton and am a machinist blacksmithing.

Q. 3. How long have you lived at the corner of Laurel and Chestnut streets, and do you own the buildings on that lot and if you do how long have you owned them and how many buildings are there on the lot?

Caspar Weygand

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A. Have lived at corner of Laurel and Chestnut street since 1866, and own the buildings on that lot. The house was built in 1866 and the shops about two years afterwards. I believe in about 1868 in the fall November.

Q. 4. Please state how that shop was occupied from the summer or fall of 1874 up to the beinning of 1878.

Objected to as leading and the answer of the previous question objected to for the reason that the witness in giving his answer was reading from a book not in evidence.

A. It was occupied from the 1st of October 1874, by John Boetger, George Lindemann and Breidenbach (I dont know his first name). It was occupied by these parties until they built their own shop.

Q. 5. When did these parties move out of your shop?

A. That is what I could not say exactly.

All the answers to the last two questions are objected to, for the reason that the witness was constantly while giving them reading them from a book not introduced in evidence.

Q. 6. Who occupied that shop after the parties you have named moved out of it into their new shop?

A. At the beginning Schweppenheisen had it for hay and straw that he packed in.

Q. 7. When did Schweppenheisen rent it and how long did he occupy it?

A. He occupied it only during the winter.

Q. 8. To whom did you rent it next as a shop?

A. John Heiny.

Objected to same as last objection.

Q. 9. When did you rent it to John Heiny?

A. August 1st, 1877.

Q. 10. Had Breidenbach, Lindemann and Boetger moved out at that time.

A. No. I could not say that for sure, the man who built the new shop he could give the statement when he had the new shop done.

Q. 11. The question I asked you was did Lindemann, Breidenbach and Boetger move out of the shop or were they out of the shop at the time you rented it to Mr. Heiny?

A. Between Breidenbach, Lindemann and Boetger and Heiny there were several months.

Caspar Thygand

Q. 12. You mean do you that these parties named in your last answer were out of the shop several months before you rented it to Mr. Heiny do you not?

Objected to as leading.

A. Yes sir.

Q. 13. What was the books that you were referring to while you were giving your answer?

A. That's an old book from that year from 1874. The book was written in 1874.

Q. 14. What was written in that book in 1874.

Objected to as the book is the best evidence.

A. Of course I write in there only the contract between Boetger, Lindemann and Breidenbach—that's all what I know about it that was for rent, I had no other contract with them.

Q. 15. In giving your testimony then you referred to this book to get the dates you have testified about have you?

Objected to as leading and for the further reason that the book is the best evidence.

A. I think I did, didn'tI say so.

Q. 16. Will you please hand the book to the officer and point out the dates to him and let him make a copy of them in the record?

A. Yes sir.

Counsel for complaiant objects to the notary making a copy as the book is in German, and the best evidence.

Q. 17. The entries in book are as follows: Rent Contrackting, Hazleton am 1st October, 1874, mit John Boetger for dem Shopp zu $125 per yahr by Monatlicher sur bezahlung, George Lindemann.

November, 7 Erfind Cash	$10.00
December, 26 Erfind Cash	$10.00

Counsel for defendants' requests the witness in order to save time to trace in the English the parts indicated in the book and let the officer take the same down.

Objected for the reason the book is the best evidence.

A. Lease contracting, Hazleton October 1st, '74 with John Boetger for shop rent, $125 per year by monthly pay, George Lindemann.

Caspar Wrigand

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November 7, Cash Rent $10.00
December 26, Cash $10.00

Lease Contracting on August 1st, '77 to John Heiny for shop to eight dollars cash pay monthly.

Q. 18 From these entries you have just read from your book, can you state that the parties rented that shop from you at the time named in those entries?

Objected to as leading.

A. I cannot understand right, I don't hear well—Yes of course.

Q. 19 Who wrote those entries in that book?

A. Myself—my own handwriting.

Q. 20. When did you write each of them?

A. I cannot say so particular, they were done about the time stated.

Q. 21. How long was Lindeman and Boetger in that shop before Breidenback came in?

A. That was misunderstanding; they three started together. Lindeman and Breidenbach bought Boetger out.

Q. 22 Did Lindeman & Breidenback remain together in that shop until they moved into the new shop, if you know?

Objected to as leading.

A. Yes, so they did.

Q. 23. Can you give the month that Mr. Schweppenheisen moved into your shop after Breidenbach & Linderman left it?

A. I believe there was a little bit of a mistake in there. I have no account in books of the date when Schwappenheisen, Heiney & Stauffer took the shop after Lindeman & Breidenbach left it. I have no account since Heiney rented the shop the first time; then Schweppenheisen came between and Heiney came back again. Then Heiney started on that date, the 1st of August.

Q. 24. Will you please let the officer have your book that you referred to, or the leaves of it having the entries you have testified about to be made a part of your deposition as exhibits?

A. I sooner give you the leaves, for there is some other writing what I would not like to part with at the present time.

Caspar Wiegand
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The leaves referred to are herewith offered in evidence and the officer will please mark the same "defendant's exhibits—Wiegand's Books Leaves Nos. 1 and 2."

CROSS-EXAMINED BY WM. M. ECCLES, ESQ.

X Q. 1. How many times did you refuse to swear or take the oath the officer administered to you?"

A. I don't know that.

X-Q. 2. Do you mean that you don't understand the question?

A. I did not understand it perfectly in the beginning.

X-Q. 3. I asked you how many times you refused to be sworn or take the oath the officer administered to you?

A. I don't want that at all. I stated that I did not want to swear unless I was compelled to do it, but I am ready any time to swear what the leaves cut out of the book says.

X-Q. 4. And you are not willing to swear to anything else?

A. No, my head haint big enough to keep all that through it.

X Q. 5. Then you don't intend to swear that anything is true except what the two leaves show?

Objected as indefinite in not inquiring about what matters witness is not willing to swear to and not proper cross-examination.

A. That's it, of course I couldn't recollect so many years back.

X-Q. 6. And that was the reason that you objected to swearing in the first place?

A. That is so; that's right.

X Q. 7. Do you know the nature of an oath?

A. Of course I do that.

X-Q. 8. Do you know the penalties for false swearing?

A. Of course I do.

X-Q. 9. What are they?

A. For to give true statement of the mind.

X-Q. 10. Do you know what punishment will be inflicted under the law on persons who swear falsely?

A. I do not know that, how much of a fine there is on it.

X-Q. 11. Do you know whether there is any punishment for swearing falsely?

A. Yes, I do that.

X-Q. 12. Do you believe in future rewards and punishments after death?

A. Yes, sir, I do.

X-Q. 13. You think for swearing falsely that the only punishment is a fine?

A. No, sir, I don't, I believe we have another world after death.

X Q. 14. You look on the page of this book which I show to you and tell me if there is not a date on that page which I pointed to you of 1876?

Objected to as the book is not in evidence and no questions have been asked in relation of any of the accounts other than those introduced in evidence.

A. Yes, but this is a different account all together.

X-Q. 15. Isn't that page the second page of that book preceding or before the one that was cut out?

A. Yes, this is a misunderstanding all. The page is contracting with Craig Longshire of the Valley house from Nov. 1st, '72, to April 20, '76; of course that has nothing to do with this.

X-Q. 16. You look at this leaf, "Defendant's exhibit, memoranda book, leaf No. 1," and tell me if that date, 1874, was not originally written 1872?

A. No, that was not written in 1872.

X Q. 17. What changes has been made in that four?

A. That is just the way it was written in 1874.

X-Q. 18. Will you please write with a pen and ink '1874?'

A. I have written 1874—I am kind of nervous, it might not be like I wrote 1874. because I am sickly and nervous.

Complainant's counsel hands the paper on which the witness wrote 1874 to the notary, and asks him to mark it Casper Wregand Complainant's exhibit No. 1.

Philip Koenig

Counsel for defendant requests the notary to mark the exhibit on the back immediately opposite the 1874.

CASPER M. WIEGAND.

Philip Koenig being produced, sworn and examined on behalf of respondant both depose and say:

Q. 1. State your name, age, occupation and residence.

A. Philip Koenig, 28 years, blacksmith, Cedar Street, Hazleton.

Q. 2. How long have you lived in Hazleton?

A. I think it was in '72 when I came here or '71, I ain't certain any more.

Q. 3. Are you acvuainted with one Daniel B. Ruple who formsrly resided at Hazleton and was engaged as a workman at carriage business?

A. I was at that time. I don't know that I would know him now any more.

Q. 4. When did you first become acquainted with Mr. Ruple?

A. I could not give no date on that I got acquainted with him as soon as he came to work for Lindemann.

Q. 5. Where was Lindemann's shop at that time?

A. It was over in Mr. Wiegands' building right across the way here.

Q. 6. Where were you working at that time?

A. I was working in the same shop.

Q. 7. How long have you been working in that same shop before Mr. Ruple came?

A. I couldn't tell exactly. It might have been close on a year.

Q. 8. Do you know when you commenced working at that shop?

A. No, I couldn't set no date on that no time.

Q. 9. If you cannot give the exact date, give the time as near as you can.

Objected to because the witness says he can't give no date.

A. That puzzles me a little, I never kept any account of any thing at that time.

Philip Koenig

Q. 10. Can't you give the year you commenced working there?

Objected to because it has already been answered and is cross-examination of his own witness.

A. It must have been in '74.

Q. 11. About how long did you work in Mr. Wiegand's shop or building?

A. It must have been close onto two years that I worked in that shop.

Q. 12. Name the different parties you worked for in that shop?

A. Breidenbach and Lindemann at that time.

Q. 13. About how long did Breidenbach and Lindemann continue in business here, either in Mr. Wiegand's building or elsewhere?

A. That might have been about four years or more about then. That firm was doing business before I worked for them.

Q. 14. Did they do business any other place besides Mr. Wiegand's building and if so, where?

A. Was that previous to my working there.

Q. 15. Any time either before or after you worked for them?

A. Not before, but after I worked there.

Q. 16. Where did Breidenbach & Lindemann move when they left Mr. Wiegand's building?

A. They built a new shop back on the corner of Chestnut and Poplar street.

Q. 17. Do you know who built that shop for them?

A. Mr. Boutz.

Q. 18. Did you work for Mr. Breidenback & Lindemann after they moved into the new shop and did Mr. Ruple also work for them after they moved into the new shop?

Objected to as leading.

A. Yes, sir.

Q. 19. Do you know whether or not Daniel B. Ruple needs any side bar buggies or wagons having cross springs connecting the spring bar and side bars while he was in Hazleton?

Philip Koenig

Objected to as leading.

A. Yes, I know that he did.

Q. 20. How did those springs that you say Daniel B. Ruple made compare with or differ from what is now known as the Timken spring?

Objected to as leading.

A. The only difference then was in that spring was the fastening on the bars on the spring bar, I reckon.

Q. 21. How many of those vehicles having such springs do you know of Mr. Ruple having made while he was at Hazleton?

A. There was four that I can remember of.

Q. 22. Who got each of those four vehicles?

A. Mr. Thompson got one, Mr. Dreisbach got one, Kunkle Bros. one, a coal and iron ———— by the name of Brink.

Q. 23. Where was Mr. Ruple working when he first commenced to make the first one of these cross spring side-bar vehicles?

A. He started to make the woodwork in the old shop of Mr. Wiegand's.

Q. 24. Where did he finish the vehicle?

A. He finished it in the new shop.

Q. 25. How were Mr. Ruple's springs secured to the sprin bars?

A. There was two clips of 5-16 round iron, bent square over the spring and went up through the spring bar with a bar on each end of it.

Q. 26. How were they fastened to the side bars?

A. They were fastened with a flat clip and spring shackle.

Q. 27. Do you know who trimmed any of these buggies?

A. I did at that time; Eugene Woodbake was the man's name.

Q. 28. Did Mr. Ruple at any time say anything about patenting the spring to you or to others in your presence?

Objected to as hearsay.

A. He told me that he would get it patented; not that I can remember of that there was anybody by.

Philip Konig

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Q. 29. What if any steps did Mr. Ruple take towards getting the spring patented, if you know?

A. His first steps was to get a model made to send to Washington.

Q. 30. Have you received recently any letters from Henry Timken or been visited by any body in his interest in relation to the invention of Mr. Ruple?

A. Yes sir, I have received letters and also have been visited by a man in his interest.

Q. 31. Did any one who visited you in the interest of Mr. Timken say anything to you about the time that Mr. Ruple was in Hazleton?

A. Yes, he asked me whether I knowed how long he was working here.

Q. 32. Did he tell you that Mr. Ruple was or was not in Hazleton during any particular year?

A. No, not that I can remember of.

Q. 33. When were you last called upon by any one in the interest of Mr. Timken?

A. I think that will be three years this coming winter. It might be longer, I am not certain, I know it was in the winter when I was visited by that gentleman.

Q. 34. Did any one call on you on the last day or so and tell you that Ruple was not here in Hazleton any time during 1877?

Objected to as leading.

A. Yes sir, that gentleman there (referring to Mr. Eccles).

CROSS-EXAMINED BY MR. ECCLES.

X-Q. 35. Didn't I at that time after asking you when Mr. Ruple made his first spring, tell you that he (Ruple) said he made it in 1877, and didn't you say, if he said he made it 1879, that he knew better than you did the time?

A. This gentleman said he made it in Plymouth up that direction somewhere. I forgot the name of the place. I said if he knowed better than I did, I would have no more to say. I said, I didn't carry water on both shoulders, I speak the truth. It has been a long time since this thing was first started, I can't remember much about it.

Philip Koenig
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X-Q. 36. How old was you when you first began to work for Breidenbach and Lindeman?

A. I think I was between sixteen and seventeen that time.

X-Q. 37. What do you mean in your last answer but one by saying, "I don't carry water on both shoulders"?

A. I mean that I ain't in favor of either party, it is no interest to me, and makes me a great deal of trouble.

X-Q. 38. How many times has Mr. Olin talked to you about this spring?

A. This will be the second time he has been here to visit me (pointing to Mr. Olin).

X Q. 39. You treated Mr. Olin very gentlemanly when he visited you didn't you, and gave him all the information you could voluntarily, did you not?

A. I treated him as near as I could right, he was a stranger when he visited me.

X Q. 40. And you told him everything you knew about the spring freely didn't you?

A. I told him as much as I could remember of it at the time.

X-Q. 41. And you did that because you wanted Ruple who is a poor man to get his rights in the spring didn't you?

Objected to because not warranted by the witnesses testimony.

A. No, sir, the first time this gentleman (referring to Mr. Olin) met me I didn't know for whose interest he was working in. Certainly when he talked about the spring I knew that it was something between the two parties.

X-Q. 42. And you didn't like Henry Timken because Ruple had told you that he stole his invention did you?

A. Ruple never told me about stealing his or anything else. I haven't saw Ruple since he left this town and haven't corresponded with either.

X Q. 43. Why did you treat me so cool when you found that I was in the interest of Henry Timken?

A. I said I didn't treat him cool.

X Q. 44. Why did you when I asked you if you would be a leisure to-night, I would come up and see you, say that

you wouldn't talk to me about the spring?

A. I have business to-night that I must tend to and I did not say that I would not talk to him about the spring. That I couldn't give him any more satisfaction at night than I gave him at the time. I was busy too, I didn't mean to treat him cool or didn't think I was treating him cool.

X-Q. 45. Why didn't you answer the letter which Mr. Timken wrote you about this spring?

A. Because I thought there was no use for me to bother with it.

X-Q. 46. Did you think it was no use for you to bother with it when you told Olin all about it?

A. I told that gentleman what was here to visit me sometime ago, all I could remember of it. That's what I told this gentleman here (Mr. Olin) I didn't make any difference.

X-Q. 47. When you was talking to Olin did you have any conversation about the dates?

A. Yes, sir, he asked me about the dates and I told him I couldn't give him no exact dates or months either.

X-Q. 48. You couldn't give him any exact dates or months, then when you told him that, could you?

A. No, sir.

X-Q 49. You couldn't give him any dates at all about the spring could you, at that time?

A. No.

X Q. 50. When did you first find out these dates which you have given?

Objected to as indefinate unless the answer giving the dates is referred to in the question.

A. I don't know as I have given any dates.

X-Q. 51. You say you came here in '72 or '71 I ain't certain any more. How is it that you are certain it was '72 or '71?

A. I didn't say that I was certain.

X-Q. 52 Then you mean to say that you ain't certain that it was either of those years that you came here?

A. I said that it was either '71 or '72 that is about the time I started my trade, I am not certain.

X-Q. 53. Are you certain that it was one of these two

Philip Konig

years that you came here?

A. No, I am not certain.

X-Q. 54. It might have been '73 that you came here for aught you know?

A. Yes, it might have been for all I know.

X-Q. 55. And it might have been '74 for all you know?

A. No, I don't think it was that late.

X-Q. 56 Where did you come from to Hazleton?

A. I came from Tamaqua.

X-Q. 57. You made the model for Mr. Ruple to send to the patent office didn't you?

A. Yes, I did.

X Q 58. When did you make that, when you was working for Lindemann & Breidenbach?

A. That's more than I can say, whether it was Breidenbach & Lindemann or Bontz & Lindemann.

X-Q. 59. Where was Ruple working when you made that model for him?

A. He was working in the same shop that I was working.

X-Q. 60. Did you make the model in the same year that he made his first vehicle upon which he put his new springs?

A. That's more than I can tell whether it was in the same year or not.

X-Q. 61. Were you working in the new shop or the old shop when you made that model?

A. It was in the new shop.

X-Q. 62. The corner of Poplar and Chestnut streets, was it not?

A. Yes, sir.

X-Q. 63. Was you with him when he sent it to Munn & Co. to get his patent?

A. No, sir.

X-Q. 64. How long did it take you to make that model?

A. I couldn't give no time on that. I done that work after six o'clock.

X-Q. 65. Did you ever hear Ruple say anything about sending that model off and about the fire in the patent office?

A. No, sir, not that I can remember.

Philip Konig

X-Q. 66. How large was that model?

A. I couldn't give no size of it.

X-Q. 67. Was it about three inches long and 1½ inches wide?

A. I can't give no size of it; I just only made the springs and he made the rest himself and I didn't see it after I gave him the springs.

X-Q. 68. Were the holes punched in the springs to fasten them to the spring bar when you gave them to him or were they to be fastened by a clamp?

A. That's more than I can remember, whether there was holes through the springs or not.

X-Q. 69. He was in a hurry to get his springs made for his model so he could send it off to Munn & Co, was he not?

A. He didn't say anything to me that I can remember of being in a hurry.

At 6 o'clock p. m. adjourned until Saturday morning, June 18, '87, at 9 o'clock.

PHILIP V. WEAVER, Notary Public.

Now, June 18, 1887, cross-examination resumed.

X-Q. 70. Who did you work for when you first came here?

A. Philip Lindeman.

X-Q. 71. Where was his shop?

A. On Wyoming st.

X-Q. 72. Whereabouts on Wyoming street?

A. Where it is at the present day; about a square and a half from here.

X-Q. 73. How long did you work for him?

A. About two years, as near as I can remember.

X Q. 74. Where did you learn your trade?

A. I served part of my time with Mr. Philip Lindeman and part with George Lindemann, or Breidenbach & Lindemann.

X-Q. 75. Did you get jour wages when you were working for Philip Lindemann or was you a helper?

A. I got apprentice's wages; I was an apprentice at that time.

Wilson Kunkle

X-Q. 76. Do you know how old you was when you first commenced working there at Philip Lindemann's.

A. I can't exactly tell how old I was; I think it was somewhers about fourteen.

X Q. 77. How old was you when you left school?

A. I don't remember that.

X-Q. 78. Where did Ruple board when he first came to Hazleton?

A. I don't know that.

X Q. 79. You worked right along in the same shop with him and you must have known at the time where he boarded, did you not?

A. I can't remember where he boarded at first.

X-Q. 80. When did he leave Hazleton?

A. That's more than I can say, in what year it was.

X-Q. 81. Where did you board when you first came here?

A. I boarded with Mr. Lindemann, the man I worked for, Philip Lindemann.

X-Q. 82. Do you know what year the Centennial was?

A. That was in '76, as near as I can remember.

X-Q. 83. Do you know how many years Ruple lived in Hazleton?

A. No, sir.

PHILIP KOENIG.

WILSON KUNKLE being produced, sworn and examined on behalf of respondants, doth depose and say:

Q. 1. State your name, age, residence and occupation.

A. Wilson Kunkle, age 32, residence Hazleton, occupation liveryman.

Q. 2. How long have you been engaged in your present business in Hazleton and what is the name or style of the firm, if you have partners?

A. Kunkle Bros., and have been engaged in business nineteen years.

Q. 3. Are you acquainted or were you with Breidenbach & Lindemann, who were formerly manufacturers of carriages in Hazleton?

A. I was.

Q. 4. Were you acquainted with Daniel B. Ruple, who

Hilson Kunkle

formerly worked at the carriage trade in Hazleton?

A. Yes, sir, I knowed him very well.

Q. 5. When did you first become acquainted with Mr. Ruple and state if you know where he was working or for whom when you formed his acquaintance.

A. He was working for Breidenbach & Lindemann.

Q. 6. What time was that?

A. It was during '76. We made arrangements to go to the bi-centennial together; Centennial. that's why I remember so well.

Q. 7. How long was Mr. Ruple in Hazleton before you made such arrangements with him to go to the Centennial?

A. That's something I could not swear to. I knowed him some time before that; I used to be up to the shop almost every day; I got acquainted when he first came here.

Q. 8. Are you familiar with what is now known as the Timken spring that is used for side-bar buggies?

Objected to as irrelevant.

A. I am, yes, sir.

Q. 9. When did you first see the Timken spring or a spring similar to it used on side bar vehicles?

Objected to as leading and as calling for a conclusion of the witness and not a fact.

A. The first I ever seen was with Mr. Ruple.

Q. 10. When was that?

A. I don't think I seen it on a wagon before '77, but I seen it on a block before that.

Q. 11. What time in '77 did you see it on a wagon and on whose wagon did you see it?

A. I seen it on Mr. Ruple's wagon. He built a light wagon and put this spring on. I couldn't hardly tell what time it was. I think it was in April, '77.

Q. 12. Have you seen the same kind of springs on other wagons after you saw them on Mr. Ruple's wagon and if you have please name the parties who owned such wagons.

A. They built two more, Mr. G. F. Deiesbach got one and Kunkle Brothers got the other one.

Q. 13. What became of these two wagons, if you know or either one of them?

Wilson Kunkle

A. E. P. Kesner bought the one wagon and sold it to Townsend Brothers, of Wilkesbarre. that was the last I knowed of that wagon; the other wagon Kunkle Brothers bought and they have it to-day, but not with the same spring under it. Mr. Olin has got the spring.

Q. 14. Was the same springs under that wagon from the time Kunkle Bros. bought it up to the time Mr. Olin got the springs?

Objected to as leading.

A. Yes, sir.

Q. 15. When did Kunkle Bros. purchase that wagon?

A. We bought it between the 1st of April and the 4th of July; I know we had it the fourth of July, '77.

Q. 16. Please examine the pair of springs now before you and state if you know where they came from.

A. They came from our wagon; they were the springs that were under the wagon when we bought it.

Q. 17. When were these springs removed from your wagon and what springs were substituted in place of them?

A. We sent those springs off in May some time, I couldn't give you just the date, to Mr. Olin. He sent us a pair of the Olin springs and we put them in the place of them.

Q. 18. Do you know how long Mr. Ruple remained in Hazleton?

A. Well, I know he was here in '79 yet.

Q. 19. Did Mr. Ruple own a horse of his own at the time he had his buggy that you have spoken of?

A. No, sir; he used to do all his hiring of me—Kunkle Brothers, I mean.

CROSS-EXAMINED BY MR. ECCLES.

X-Q. 1. The side bars in this buggy are supported on the hind axle by a spring and on the front bolster or head block by a like spring, as the Brewster side bars are supported, are they not?

A. Yes, there is a spring on the hind axle and the bolster in this wagon.

X-Q. 2. And those springs connects the side or attaches the side bars to the hind axle and front bolster respectively,

Wilson Kunkle

do they not?

A. Yes, sir, they are fastened together.

X-Q. 3. That is the side bars of this buggy of yours from which these springs were taken rest on the hind spring in the rear and on the front spring in front, which springs rest respectively on the hind axle and front bolster or head block, do they not, and the side bars do not rest on the hind axle and front bolster?

A. Yes, sir, the side bar rests on the springs.

X-Q. 4. And that is the way all the vehicles which Ruple made or had made were constructed, was it not?

A. I know about those three wagons.

X-Q. 5. That was the way those three wagons were constructed, was it not?

A. Yes, sir.

X-Q. 6. Were the springs on all those three wagons made exactly like the ones before you?

A. They were called the same spring; I never got down and looked at them; they were called Ruple's new spring.

X-Q. 7. You have no writing or memoranda made by yourself at the time by which you fix those dates, but fix the dates by your recollection only, don't you?

A. What dates do you refer to? There are several dates we have been talking about.

X-Q. 8. Any of the dates or times spoken about in your direct examination?

A. I have an old day-book here that tells me when he done his hiring.

X-Q. 9. Your ledger showing dates is lost, is it not?

A. Yes, sir.

X-Q. 10. When did it get lost?

A. It got lost lately; I don't know what became of it.

X-Q. 11. How came it to get lost?

A. I had it at the house; the ladies had it to press leaves; I don't know what become of it afterwards.

X-Q. 12. You fixed these dates and years which you swore to from looking at that book, didn't you, which you now have in your possession called your day-book and swore

Helen Kunkle

to what it contained, didn't you, and did not rely upon your memory?

A. No, sir, I did not; I kind o' refreshed my memory; I looked over this book.

X-Q. 13. Will you produce that book and let me see it?

A. I kin, I suppose, if it is necessary.

X-Q. 14. Will you get it and bring it here after dinner hour.

A. I will see about that.

X-Q. 15. Why do you say I will see about that?

A. Well, I haven't got the book now.

X Q. 16. Where is it?

A. I don't know where it is.

X-Q. 17. When did you see it last and where?

A. Day before yesterday I guess.

Counsel for defendants states of record that the book referred to has placed by him for safety in the safe at the Central Hotel, where it still is; that if counsel for complainant desires copies of the entries referred to will be made and the book will be produced for comparison with such entries, but as the book was simply used, as the witness has stated, to refresh his memory, it will not be introduced in evidence at this time, nor will it be handed to the complainant's counsel for the purpose of incumbering the record with matters not material to any issue in this cause at the expense of the defendants, especially as the complainant has an opportunity to take testimony in rebutal and produce the book or full copies of it if he desires at his own expense. For the further reason that the book was not inquired about in direct examination and all reference to it now by complainant's counsel is new matter and not proper cross-examination.

The counsel for the complainant now gives notice to the defendants to produce said book to enable the plaintiff's counsel to cross-examine the witness and they having refused he moves to strike out all evidence in this deposition in relation to dates.

X-Q. 18. What was said when you gave the book to Olin?

A. There was nothing said, nothing about the book;

Hilson Hunkle

there was this said: He asked me to let him have the book and I told him it was no good to me, he could have it.

X-Q. 19. That was day before yesterday?

A. Yes, sir.

X-Q. 20. Didn't he tell you to have nothing to say to me?

A. I walked up to the corner with this gentleman sitting here (referring to Mr. Murray) and met him (referring to Mr. Eccles) on the corner. He (Mr. Murray) said in a joking way "don't have anything to do with him (Mr. Eccles.)"

X-Q. 21. Didn't you look over that book for the purpose of testifying in this case and did not Mr. Olin or Mr. Murray tell you to do it?

A. No, sir, the reason I looked over the book was to see if I could not find the exact date when I bought this buggy; I did not find out the exact date when I bought it.

X-Q. 22. How do you know you had that buggy in July, 1877?

A. We were in the Luzerne House stable and I know we had it when we were there. A man by the name of Ulinnick had it and there was another fellow wanted it at the same time.

X Q. 23. These books showed that you were in the Luzerne House stable, did they not?

A. No, the books didn't show nothing about it.

X Q. 24. Would your ledger which is lost show when you got that buggy?

A. My journal would show.

X-Q. 25. Is it lost too?

A. Yes.

Q. 26. How old were you when you went in business?

A. I will answer that after dinner.

Adjourned until 1:30 p. m. to-day.

CROSS EXAMINATION RESUMED.

Answer to last question I was fifteen years old.

X-Q. 27. How do you know when you went into the Lu zern House stables?

A. I know we went in. I recollect very well in the spring of '77 and had them three years.

Abram Kunkle

X Q. 28. What makes you know you went in there in the spring of 1877?

A. I know. I don't know any thing that makes me know it, but I know I was there in '77.

X-Q. 29. Was the firm name then Kunkle Bros?

A. Yes, sir.

X-Q. 30. Where did you go next?

A. We came down to the stables, where we are now.

X-Q. 31. How long have you been where you are now?

A. We have been there ever since, that would be seven years wouldn't it.

X-Q. 32. How do you know it would be seven years?

A. If I can count, it would be seven years of course.

X-Q. 33. Then you estimate it to be seven years simply because you have counted for the spring of 1877?

A. No sir, from '79—I said we went there in the spring of '77 and were there three years, then we went to the Hazleton House stables, where we are at the present time.

X-Q 34. How do you know that you was at the Luzeran House stables three years?

A. Because we had leased it for three years and staid until the end of our lease.

X-Q. 35. Have you a copy of that lease?

A. No sir, I don't know that I have.

X-Q. 36. Do you know that you have not?

A. To the best of my knowledge, I haven't.

X-Q. 37. Was it recorded?

A. No, sir.

X-Q. 38. Who was the man you leased it from?

A. I leased it from Nicholas Stocken, he is dead now.

X-Q. 39. Do you know where Ruple boarded, when he first came here?

A. No, sir.

X-Q. 40. Have you always lived in Hazleton?

A. No, sir.

X-Q. 41. When did you come here?

A. '71.

X-Q. 32. Where from?

A. I came from Tamaqua.

Hilson Hunkle

Counsel for defendant states since he has learned from the witnesses testimony that he was willing to part with the book referred to, and called for Complainants' counsel, he herewith tenders to said counsel said book without waiving the objection heretofore entered as to the introduction of new matter on cross-examination.

X Q. 43. Is this book which Mr. Murray handed me, kept in your hand writing?

A. Yes, sir.

X-Q. 44. Will you point out to me any thing in that book which causes you to remember the dates sworn to in your examination.

Objected to as indefinite.

A. I don't know as I can.

X-Q. 45. Are there any entries in that book which shows any of the dates sworn to by you, if so point them out to the notary.

A. There are dates they did a great deal of hiring of me I remember that Mr. Ruple got all that hiring, it was for him. He was showing up his new springs that he had got up.

X-Q. 46. Is there a single entry in that book that shows a charge against D. B. Ruple or Daniel B. Ruple for horse hire?

A. Yes, there is, but this part, we wouldn't give Mr. Ruple any horses on his account and Breidenback and Lindemann told us to charge it to them.

X-Q. 47. Give us the date of the first charge to Daniel B. Ruple for horse hire that appears in that book if any, from the book.

A. Dec. 7, 1877, page 73 charged to Breidenbach & Lindemann per wheel wright. On page 66 October 28, '77, probably there are some further back, I better commence in front and go back. There hain't any further back, or rather further ahead in the book, there are some further back.

X Q. 48. October 28, '77, then is the earliest charge you have in that book against Breidenbach & Lindemann for wheelwright is it not?

A. This is a special hire for himself on a Sunday. I

Hilem Kunkle

would not trust him for a horse at any time, so I charged it to Breidenbach & Lindemann.

X-Q. 49. Please answer my question, is October 28, 1877, the first entry in that book to Breidenbach & Lindemann per wheelwright?

A. That is the first charge made that way but there is lots of these other charges for him. I charged it to the firm they to do so.

X Q. 50. Please answer my question, haven't you just looked carefully over that book and do you find any charge to Breidenbach & Lindemann per wheelwright, earlier than October 28, 1877?

The question is objected to as having been fully answered.

A. October 28, '77 that's the first charge made that way yes, sir.

X-Q. 51. In that entry you have "per wheelwright" interlined have you not?

A. What do you mean by that, I don't know what you mean by that.

X-Q. 52. I mean you have the words "per wheelwright" written above the charge Breidenbach & Lindemann. And between the line on which their names are written, and the next line above?

A. Yes, sir.

X-Q. 53. Look at page 73, the entry Dec. 7, '77 and tell me if the words per wheelwright are not also interlined?

A. Yes, sir, they are.

X-Q. 54. Will you please examine the book and tell me if the name Daniel B. Ruple any where appears in that book?

A. Yes, Septe mber 14. 1878.

X-Q. 55. Read the entry?

A. Dan. Ruple per Lindemann, Dr. $2.50.

X-Q. 56. Is that the first time his name appears in that book?

A. The first time, sir.

X-Q. 57. Are there any other entries in his name?

A. Yes, sir, on Sunday, October 20, '78, he paid me cash $2.00 for horse. Saturday October 26, '78, paid me cash a ga i n $2.00 for a horse.

Henry Bontz

350

X-Q. 58. Was Mr. Ruple any better off financially in '78 than he was in '77.

A. I don't know any thing about his financial affairs but I wouldn't trust him any more.

X-Q. 59. You did trust him Sunday, October 20, '78 did you not for horse hire?

A. I trusted him when he went out and he paid it when he came in.

X-Q. 60. Can you find the entry when you let him have the horse to go to Scranton in that book?

A. No, sir.

X-Q. 61. Did you ever let him have a horse to go to Scranton?

A. Yes, sir, we did.

X-Q. 62. Is the entry in that book?

A. I guess it is; one of the front charge—charged to Breidenbach & Lindemann.

X-Q. 63. You say guess, you don't know?

A. I won't swear to it, no, sir, I cannot.

RE-EXAMINATION.

Q. 1. The first entry in this book is Friday, Dec. 1st, 1876?

A. Yes, sir.

Q. 2. And the first entry in this book to Breidenbach & Lindemann is Jan. 17, 1877, is it not?

A. Yes, sir.

Q. 3. When did you last see the journal and ledger which you say is lost?

A. I seen it last fall.

WILSON KUNKLE.

The pair of springs referred to by the witness is herewith offered in evidence and the officer will please mark the same "Defendant's exhibit, Kunkle Bros. Wagon Springs."

HENRY BONTZ being produced, sworn and examined on behalf of defendants, doth depose and say:

Q. 1. State your name, age, residence and occupation.

A. Henry Bontz, age 54, residence Hazleton, Pa., carpenter, builder and contractor.

Henry Bontz.

Q. 2. How long have you been engaged in your present business in Hazleton?

A. Twenty years.

Q. 3. Do you know who built the carriage shop for Breidenbach & Lindemann which was formerly on the lot at the corner of Chestnut and Poplar streets in this city?

A. I built that shop.

Q. 4. When did you commence to build that shop and when did you complete it?

A. I commenced that shop on June 9th, 1877, and finished it July 29th, '77.

Q. 5. When did Breidenbach & Lindemann move in that shop, if you know?

A. The shop wasn't quite finished they moved into it.

Q. 6. Are positive the shop was commenced on the 9th of June and completed on 29th July, 1877?

A. Yes, sir.

Q. 7. Were you a member of the firm of Bontz & Lindemann?

A. Yes, sir.

Q. 8. When did you form the partnership?

A. That I can't say certain; I guess it was about October, '77.

Q. 9. When did you dissolve partnership with Mr. Lindemann?

A. Why, to my best knowledge it was December '77.

Q. 10. Who managed the business while you were a member of the firm of Bontz & Lindemann?

A. That was Breidenbach, he was painter and George, the son of the old Lindemann, he was blacksmith—they managed the business.

Q. 11. Was it old man Lindemann or was it George Lindemann was your partner in the business?

A. The old man, George's father,

Q. 12. What interest did you have in the business?

A. To save me for the money I had there for building the shop.

Q. 13. Did you or not leave the firm so soon as you got your money for building the shop?

Henry Bontz

A. I did so soon as Mr. Old Lindemann give me satisfaction for my money what I got on the shop.

Q. 14. Was the dissolution of the partnership of Bontz & Lindemann advertised when you left it?

A. Yes, sir.

Q. 15. Have you the bill for advertising the dissolution of the partnership of Bontz & Lindemann?

A Yes, sir.

Q. 16. Will you please hand it to the officer to be made a exhibit in the case?

A. Yes, sir, (and hands it to the officer).

The bill handed the notary is offered in evidence and the officer will please mark the same Defendants' Exhibit Bontz & Lindemann Bill.

Q. 17. Before you were called to testify here did you examine your books and memoranda in relation to the time when you built the Breidenbach & Lindemann shop?

A. Yes, sir.

CROSS-EXAMINED BY MR. ECCLES.

X-Q. 1. Will you preserve those books for six months, so that I can see them and use them if I desire?

A. Yes, sir.

X-Q. 2. Did you know a young man by the name of Ruple, who worked for Breidenbach & Lindemann?

A. There were half a dozen in that shop; I didn't know their names, I knowed them by their face.

X-Q. 3. How many wheelwrights did they have working for them?

A. That I can't tell.

X-Q. 4. They had more than one, hadn't they?

A. I suppose they had, tho' I don't know.

HENRY BONTZ.

State of Pennsylvania,
Luzerne County, s. s.:

I, Philip Weaver, a Notary Public, duly commissioned and sworn, residing at Hazleton, in County and State aforesaid, do hereby certify that the foregoing depositions of Casper Wiegand, Philip Koenig, Wilson Kunkle and Henry Boutz were taken on behalf of defendants, in pursuance of agreement of counsel, George J. Murray appearing for defendants and Wm. M. Eccles, Esq., for complainant, before me at Hazleton, Pa., on the 17th and 18th day of June, 1887; that each of said witnesses were, by me, duly sworn before the commencement of his testimony; that the testimony of each of said witnesses was written out by myself; that I am not connected by blood or marriage with either of said parties, or interested directly or indirectly in the matter in controversy.

I testimony whereof I have hereunto set my hand and affixed my seal of office at Hazleton, Luzerne County, Pennsylvania, this 21st day of June, A. D., 1887.

PHILIP V. WEAVER,
Notary Public for the Commonwealth of Pennsylvania.

SEAL

422 And afterwards, to wit, on the 31st day of August, A. D. 1887, the following stipulation was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Stipulation.

United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMKEN } In Equity. #3853.
vs.
E. D. OLIN *et al.* }

By consent, the complainants may have till the first day of October, 1887, to close his rebutting evidence.

GEO. J. MURRAY,
Solicitor & Counsel for Defendants.
ECCLES & FISHER,
For Complainants.

August 29, '87.

And afterwards, to wit, on the 4th day of October, A. D. 1887, the following deposition was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Deposition of Henry Timmen.

423 *Complainant's Rebuttal Evidence or Evidence in Reply.*

Deposition of Henry Timken,

a witness called on behalf of the complainant herein, and residing in the city of St. Louis, in the State of Missouri, being duly cautioned and sworn to tell the whole truth, and being carefully examined, deposes and says, as follows:

Henry Timken.

Q. 1. State your name, age, residence and place of business and occupation.

A. 1. My name is Henry Timken; my age is 56 years. I reside in St. Louis, Mo.; my occupation is dealer in buggy springs.

Q. 2. State when you first invented the spring, and reduced it to practical operation, which is described and claimed in your patent, No. 197,689, and dated November 27th, 1877, for improvement in carriage springs.

(Objected to by counsel for defendants, as calling for testimony-in-chief and improper rebuttal.)

A. 2. In the fall of 1875.

424 Q. 3. State how you know it was in the fall of 1875, and whether you have any record evidence which enables you

to determine that fact; if so, what is it and how do you establish that date from such record evidence.

(Objection repeated.)

A. 3. I have a book in which I kept an account of the men work, ing for me in 1875 and later; I finished a buggy in June, 1875- and said buggy had springs that run lengthwise from the head block to the hind axle; at the ends they were curved and brought round to the top of the axle and the front bar, and there fastened by permanent shackles; this buggy was ironed by E. A. Jones or Allen Jones; we used to call him Allen Jones—a blacksmith working for me; it is here entered as Allen Jones, and this book to his account, on the 15th day of June, 1875; for the work done thereon I paid him thirty-five dollars.

I built another buggy with the same kind of springs which was intended to be sent to the St. Louis fair, in 1875; it was a one-man road wagon, exhibited at the fair in October, 1875. Shortly after the fair I took the springs off of the buggy that I built in June, 1875, and cut them in the center and put them crosswise under the same buggy and fastened their curved ends on the top of the side bars to permanent shackles, and attached the heavy ends on the opposite sides to the bottom of the body from where they were attached to the side bars; after testing the springs in that shape I took them off again and got a set of new Concord springs, had them cut in two in the center, had a double sweep put into them, the small ends turning upward; I attached the small ends to the bottom of the side bars with a permanent shackle, then crossed them, and attached the heavy ends on the opposite sides of the bottom of the body, one pair near the front end and one pair near the back end of the buggy, the same as is shown in my patent, No. 197,689.

I establish the date by this book, in which I kept the hands'
425 account, and in which this buggy, built in June, 1875, is entered as "patent" buggy, also, from the date of the small road wagon I had at the fair in the same year.

Q. 4. How were the side bars in that "patent" buggy ironed by Allen Jones, in June, 1875, called the "patent" buggy, attached to the hind axle and the head block, respectively?

(Same objection, and for the further reason that the question has been answered, and for the further reason that the witness has not stated that that buggy had side bars.)

A. 4. They were attached permanently to the hind axle and head block with clips, they might have been attached to the head block with bolts.

Q. 5. On what part of the head block and axle were the small ends of the springs attached to that buggy of June, 1875? And state whether the small ends of the springs passed under the axle or whether they passed on top of the axle and head block.

A. 5. The small end of the hind part of the buggy passed under the back axle and was fastened on top of the axle with a permanent shackle; the small end of the front part of the spring passed over

the front axle but under the head block and curved round and fastened on top of the head block with a permanent shackle.

Q. 6. In the first cross-spring of the vehicle which you made after the October fair of 1875, how were the small ends of the springs attached to the side bars, and why did you afterwards change them and attach them to the under sides of the side bars? I mean in the vehicle in which you cut the long springs of the buggy made in June, 1875, and crossed them and attached them to the under side of the body.

(Objected to by defendants' counsel as leading and suggestive, and for the further reason that the description of the spring in question is not warranted by the witness' testimony.)

A. 6. The first cross-springs I put on there, were the long springs I had lengthwise on the buggy. I then took them off and
426 had them cut in the center, left the curves on the ends as they were before, that brought them to the top of the side bars; then I fastened them to permanent shackles; after testing them in that shape, they did not work to suit me, then I took those off and got a set of regular side springs and had them cut in the center and had the small ends curved up, which gave them a double sweep, then attached them to the bottom of the side bars to permanent shackles, and in that way I found they operated all right.

Q. 7. Did or did not these first cross-springs pass under the side bar or over it at their small ends?

A. 7. They passed under the side bar and curved around on the outside and fastened on top.

Q. 8. How were they attached to the bottom of the body, and to what were they attached at the bottom of the body?

A. 8. They were attached to cross-bars, and were fitted in the bottom of the body at their heavy ends on the opposite side from where they were attached to the side bar.

Q. 9. How were the second pair which you put on, or the first pair, after you took this pair off, attached to the bottom of the buggy, that is, the spring which you found to work satisfactorily?

A. 9. They were attached to the same bars on the bottom of the body as the first ones, the only difference in the springs was, the first springs run under the side bars around the outside and fastened on top with a large curve to allow them to pass around the side bar; the second pair had only a small curve in comparison to the former, and they were attached to shackles underneath the side bar or on the bottom of the side bar; otherwise they were about the same as the first.

Q. 10. Explain this shackle with which you attached this second pair to the side bar, stating how it was attached to the side bar and how it was attached to the end of the spring.

427 A. 10. The shackle was the same as the permanent shackle I now use; it is fastened to the side bars with a clip that passes around the side bar and then passes through holes in the shackle and screwed up with nuts to the side bars; then there are

two lips bent down low enough and wide enough to receive the springs, and in these lips there are holes, also the end of the springs is curved round, forming a place to receive a bolt; then a bolt is passed through these lips and the end of the spring and screwed up with a nut that holds the spring into position.

Q. 11. Did that buggy on which you put the second pair of cross-springs have any reach or not?

A. 11. No, sir. It had a cross-bar running from one side bar to the other, right back of the head block to which the fifth wheel was attached; the fifth wheel being on the back of the front axle and this bar was put there to support it in place of a reach.

Q. 12. Complainant's counsel shows the witness a vehicle gear and asks the notary to mark it "Timken Exhibit One Prime (1′)," and asks the witness to carefully examine it and state whether or not, that second spring and vehicle, made in the fall of 1875, differed or corresponded with said exhibit in its construction and mode of operation.

(Objected to by defendants' counsel as leading and suggestive, and for the reason above stated, that it is not properly in rebuttal, the introduction of the exhibit is objected to at this stage of the case for the latter reason.)

A. 12. The springs were similar to these with the exception that they did not have the top plate extend out further than the others, otherwise it was about the same with the exception that the fifth wheel was on the back of the front axle, and this is on the front and had no reach, but a cross-piece to support the fifth wheel instead of it. The mode of operation otherwise was the same as this exhibit.

Q. 13. What caused you to change those springs from side
428 springs to cross-springs, and to attempt to make a side-bar vehicle with cross-springs, after you had exhibited your road wagon spoken of at the October fair in 1875, and state in your answer what occurred while exhibiting said road wagon at the fair?

(Same objection.)

A. 13. I found too much side motion in the side-spring buggy. The road wagon I had entered for a premium at the fair. When the awarding committee came to examine the vehicles, Mr. Dougherty, an old carriage-maker, being one of them, got into it to try the springs, and found so much side motion in it that he nearly fell out of it, and I then got thoroughly disgusted with the side spring, and then decided to put them under crosswise, and attained the result of my invention of my patent No. 197,689.

Q. 14. What was you working to attain with regard to the height of the body in your experiment with springs, and what was the demand of the trade in regard to high or low vehicles about that time?

A. 14. My object was to get an easy riding side-bar vehicle where the body would set low down and would be easy to get in and out of; the Brewster side-bar wagon was then the fashionable vehicle

with the body low down, but the springs were short and hard riding; the trade was not satisfied with such stiff springs, therefore I went to experimenting to get an easy riding buggy with side bars and have the body sit low. This I accomplished by taking a side spring, which is a long and easy riding spring, by cutting it in the center and crossing it under the bottom of the body, and thereby retained the same length of the spring, and got an easy riding side-bar wagon, which is neat in appearance, very easy riding and easy to get in and out of.

Q. 15. Did you ever have any testimonials with regard to the practical use of your patent buggy spring from parties who used them in St. Louis in the years 1876 and 1877? If so were those testimonials published in any papers published in the city of St. Louis?

(Question objected to because it is leading, and because it
429 is testimony-in-chief and not proper in rebuttal.)

A. 15. I did have such testimonials, eight of them. They were published in a newspaper called the "St. Louis Dispatch," May 18th, 1878.

Q. 16. What were the dates of those several testimonials?

(Objected to for the reasons above stated and for the further reason that the testimonials are not produced.)

A. 16. The first one was January 28th, 1878.
The next one was January 30th, 1878.
The next January 27th, 1878.
The next January 30th, 1878.
The next January 29th, 1878.
The next February 1st, 1878.
The next January 29th, 1878.
The next January 29th, 1878.

Q. 17. Can you tell me when you made and sold the John M. Sellers vehicle which is mentioned in one of those testimonials?

(Same objection.)

A. 17. That was sold during the month of July, 1876. It was made in the winter or latter part of 1875.

Q. 18. You mean by the winter of 1875 the winter of 1875 and 1876, don't you?

A. 18. Yes, sir; the winter of 1875 and 1876.

Q. 19. Can you state when any of the other vehicles mentioned in any other of these testimonials were made and sold?

(Same objection.)

A. 19. They were all made and sold during the years of 1876 and 1877.

Counsel for the complainant hands the notary a paper purporting to be the "St. Louis Dispatch" of May 18th, 1878, and asks the notary to mark it "Timken's Exhibit Two Prime (2')," which is

done. (The introduction of the exhibit is objected to by defendant's counsel as incompetent and improper at this stage of the case and not the best evidence.)

Q. 20. Who had those testimonials and that advertisement
430 and cut put in that "St. Louis Dispatch" of May 18th, 1878?

A. 20. I had it done.

Q. 21. Who procured the testimonials?

A. 21. I did. I spoke to these different parties about the spring and the buggies that I had sold them and asked them how they liked them; they said they were very fine riding buggies and they liked them very much; then I asked them to give me a testimonial if they felt disposed so to do, stating what they thought of them and they gave me these testimonials which I had published in the "St. Louis Dispatch," May 18th, 1878.

Q. 22. What has become of the original testimonials if you know?

A. 22. That I cannot say. They may perhaps be among some of my old papers yet. They may have been destroyed.

Q. 23. Did you use in the city of St. Louis in the winter of 1875 and 1876 your patent spring yourself?

(Objected to for the reasons above stated and for the further reason that it is leading.)

A. 23. I did. I used them almost every day.

Q. 24. Who worked on your springs in the fall and winter of 1875 and 1876 besides Jones?

(Same objection.)

A. 24. Joseph Harrison. There may have been some others, I cannot say positively.

Q. 25. State, Mr. Timken, whether or not you spent any considerable amount of money in introducing this spring before and after your patent?

(Same objections.)

A. 25. I did. I spent a good deal of money in experimenting and getting it up, and afterwards I spent a great deal of money with a traveling man and in advertising the spring.

Q. 26. About how much money have you spent yearly up to the present time in advertising?

(Same objection.)

431 A. 26. Well, I have spent, that is pretty hard to say, some years I have spent more than others. I should think I have spent in all during that time with traveling men and advertising from forty to fifty thousand dollars.

Q. 27. Can you state how extensively your springs have been used since your patent was issued and you began to put your spring before the public?

A. 27. I couldn't say exactly, somewhere between there and four hundred thousand set, I should judge.

Q. 28. When did you first license spring-makers in the United States to make your patent spring?

(Same objection.)

A. 28. I think it was in 1879. It might have been sooner.

Q. 29. How many spring-makers, all told, did you license under your patent?

(Same objection.)

A. 29. I think twenty-two (22).

Q. 30. What proportion or about how many of these were licensed in 1879?

A. 30. Three; the Spring Perch Company, the Bridgeport Spring Company, of Bridgeport, Conn., and the Tomlinson Spring Company, of Newark, N. J.

Q. 31. About how many did you license the next year?

A. 31. I don't think I licensed any others for a couple of years after that.

Q. 32. About how many of these twenty-two did you license a couple of years after that?

A. 32. I couldn't say exactly. My first intention was not to license any more than the three heretofore named, as I was afraid I would get a poor spring made if I licensed so many of them; but, then, pressure from the other spring-makers was brought to bear upon me to such an extent that I decided to license any one that wanted to be licensed, and I licensed the majority of them in about two years, perhaps not more than one year after I had licensed the first three.

432 Q. 33. State whether or not those licensed spring-makers have been paying you royalty, and are paying you royalty today, for the privilege of manufacturing under your patent?

A. 33. They have paid me a royalty of two dollars per set on all springs they reported to me up to January 1st, 1886; after that I reduced the royalty to one dollar per set, and they have paid me that amount ever since.

Q. 34. What was the cause of the pressure brought to bear on you by other spring-makers, spoken of by you above, for license?

A. 34. The great increase of the demand for my springs from the different carriage-makers.

Q. 35. What was the extent about that time of the demand for your springs by the different carriage-makers of the United States?

(Objected to as above.)

A. 35. It is hard to say. The spring had been introduced pretty well all over the country, and it gave such general satisfaction that the majority of the carriage-makers wanted to use them, and there was a great demand for them.

Q. 36. Was there any demand for them by the consumers throughout the country?

A. 36. There was; the carriage-makers would generally build what the consumers and dealers demand, and, therefore, a pressure

was brought to bear on the spring-makers to make my patent spring for them.

Q. 37. To what do you attribute this large demand for your spring, Mr. Timken?

(Same objection.)

A. 37. To the easy riding quality of the springs, which I gain by crossing the springs under the bottom of the body, and thereby gaining a long spring and a great deal of elasticity and a low vehicle, for the body sits low, and easy to get in and out of, and at the same time very durable and not liable to get out of order, as the heavy ends of the springs are bolted securely to the bottom of the body or cross-bar, which holds the body securely in place, and prevents the lateral motion of the body—the end motion of the
433 body, I mean, instead of the lateral motion, and thereby is a plain, neat and easy riding buggy.

Q. 38. Is there anything attributed in your mind to the manner of introducing the vehicle and advertising it?

A. 38. (Question withdrawn.)

Q. 39. State, Mr. Timken, if you please, what advantage your rigid shackle attaching the springs to the side bars has in enabling you to set the body close to the side bars?

(Objected to as irrelevant and immaterial, for the reason that the claim of the patent is not limited to any kind of shackle, nor are the shackles made elements of the claim.)

A. 39. The permanent shackles allow the side bars to come up close to the body and allow the vehicle to turn in a smaller space than if they were far away from it; they prevent the body from striking against the side bars: in swinging shackles on both sides of the body the side bars would have to be farther away from the body, otherwise the body would strike against the side bar and bruise the body.

Q. 40. State, Mr. Timken, what advantage there is in your patent in the side bar being attached rigidly to the hind axle and front bolster.

A. 40. I thereby get a strong gear with a solid frame, which will run steadier than other styles of vehicles.

Q. 41. How about the durability of the rigid frame thus secured over others?

A. 41. It is stronger and more rigid and it requires less pieces of wood and iron, and therefore less liable to get out of repair than most any other style of vehicle and costs less to build it.

Q. 42. Is it or is it not, then, more durable than other styles of vehicles?

A. 42. It is.

Q. 43. Now, Mr. Timken, tell us exactly what you mean by the double sweep in your spring and why you made it with a double sweep, and why you bent it up at the small end where it at-
434 tached to the side bar instead of making it straight?

(Objected to as irrelevant to any issue in the case.)

A. 43. A double sweep is put into the springs to allow the body to move up and down between the side bars, as it takes up the elongation of the springs; if they were straight, or a regular arch, the body could not move up and down between the side bars without having swinging shackles; by putting the double curve into the spring, that is the small end turned upward and the heavy end down, I can use permanent shackles which I could not otherwise do. The heavy ends turned down and the light ends turned up is what I mean by a double sweep.

Q. 44. Mr. Timken, do you know a man by the name of Joram Priest?

A. 44. I know him.

Q. 45. Did you hear him testify in the city of Detroit, Michigan, in the case of Timken *vs.* The Columbus Buggy Company?

A. 45. I did.

Q. 46. Complainant shows the witness a partial vehicle gear and asks the notary to mark it "Complainant's Priest Exhibit One," and asks the witness to examine it carefully and state whether or not said Joram Priest did not there state that that exhibit represented the vehicle which he made in Detroit in 1873, and which would not work, and he took it off and threw it away and never built any more like it or words to that effect?

(Objected to, first because it calls for hearsay evidence which is of record in court, said record being the best evidence).

A. 46. I saw that same exhibit in Detroit, Michigan, and heard Joram Priest testify that he made a vehicle, I think it was in 1873, somewhere along there, that he put a set of springs under the same as shown in this exhibit. He testified that they would not work satisfactorily and he took them off and replaced them with other springs, and that he never used any of the same kind of spring afterwards.

Q. 47. For whom was he testifying on that occasion;
435 the complainant or the defendant, and for whom did he testify that he made that exhibit?

(Same objection.)

A. 47. For the Columbus Buggy Company in my suit against them, the Columbus Buggy Company being the defendant. He said he made the exhibit for the Columbus Buggy Company.

Q. 48. Mr. Timken will you look at that letter marked "Complainant's Priest Exhibit Four," and tell me whether you ever saw that letter before, and if so, when?

(Objected to as an attempt to rebut the testimony of his own witness.)

A. 48. Yes, sir; I have seen this letter. I don't just remember when, I suppose just after September 3, 1881.

Q. 49. Complainant shows the witness a letter book, page 585, and asks the witness if that is the copy of a letter to Joram Priest which he sent in answer to the one just shown him.

A. 49. That is a letter-press copy of the answer to the letter just shown me.

Q. 50. Please read and let the notary copy the latter part of that letter-press copy.

(Objected to unless the whole letter is introduced.)

Witness reads.

A. 50. "If so, please send me a cut of it."

Complainant's counsel introduces page 585 of letter book just shown to witness and asks the notary to mark it "Complainant's Exhibit" "Timken Letter to Priest," said leaf being in letter book dated from January 1st to December 30th, 1881.

Q. 51. Complainant's counsel hands the witness a letter dated September 27th, 1881, marked "Complainant's Priest Exhibit," and asks the witness to state if he ever saw that letter before, and if so, state what letter it was received in answer to.

A. 51. I have seen this letter before; it was received in answer to my letter of September 13th, 1881, to Joram Priest.

436 Q. 52. State, Mr. Timken, whether or not the letter, "Complainant's Exhibit (4)," is the first letter which you ever received from Joram Priest.

A. 52. I think it was.

Q. 53. State whether or not the letter dated September 27th, 1881, and marked "Complainant's Priest Exhibit," is not the second letter you ever received from Joram Priest?

A. 53. It was.

Adjourned to Saturday, Sept. 24th, 1887.

Not being able to complete the taking thereof for the want of time, I adjourn the further taking of same until tomorrow, Sat., Sept. 24, 1887, then to be continued at the same place & between the same hours mentioned in the annexed notice.

A. A. PAXSON, *N. P.* [SEAL.]

Pursuant to adjournment I continued taking said testimony of said witness as follows, to wit:

Q. 54. Look at the pencil sketch in the letter of September 27th, 1881, and state whether or not that is the same as it was when you received the letter?

A. 54. It is the same; the drawings are the same that they were then.

Q. 55. What kind of a spring does that pencil sketch represent, and how does it operate according to said sketch?

A. 55. That represents a Concord spring, with the exception that one end of the spring is a little shorter from the crown of the spring than the other end. The sketch shows the spring at the shorter end attached to the sill of the body on the side near the outer edge, with a shackle; the crown of the spring, the heavy part rests underneath the center of the body or cross-piece, then crosses over to the other

side and is attached to a side bar; the other spring lying by the side of it is attached in the same manner, only on the opposite side; the springs are heavy at their crown, made of more leaves; these tapered down till they get to one leaf where they are attached to the bottom of the body and the side bar; they are attached in the center with a "T" bolt, and thereby held to the cross-bar and allowing this spring to move where they rest against the cross-bar, to allow the springs to move or spring on both sides from where they are attached to the center of the body of the bottom. It is what I should call a double-acting spring.

437 Q. 56. What do you mean by a "double-acting spring" used in that sense?

A. 56. I mean a spring that springs on both sides of the heavy part where it is attached to the bottom of the body.

Q. 57. How many sides does each section of your spring, spring on from the heavy part where each spring is attached to the cross-bar?

A. 57. One side. The heavy part is bolted fast to the cross-bar, and there is no spring beyond that.

Q. 58. State whether the heavy portion of your spring moves on the cross-bar as this one does, shown by the pencil sketch.

A. 58. It does not. It is held there permanently by two or more bolts that pass through the cross-bar and the spring.

Q. 59. In all your intercourse with Mr. Joram Priest, did or did he not ever state or intimate that he had ever constructed a spring like the spring marked "Defendants' Exhibit Priest Spring Number One"?

(Objected to as leading and suggestive.)

A. 59. He did not. On the contrary he told me that he had never made a spring that crossed on a side-bar buggy but what had a spring on both sides from where it rested against the bar at its heavy part.

Q. 60. Complainant's counsel shows the witness a partial buggy gear, and asks him to examine it carefully, and asks the notary to mark it "Complainant's Timken Exhibit Three Prime (3′)," (which is done), and to state whether he has ever seen it before; if so, when he first saw it, what it is made after, and whether or not it is made after a scale of any drawing; if so, what?

A. 61. I had it made to scale after the drawings of my patent No. 197,689; I don't just exactly remember when I had it made, some three years ago, I think. My foreman made it for me, as I wanted to use it in a patent suit of Timken *vs.* The Columbus Buggy Co., and used it as an exhibit in that case.

438 Q. 62. State what you mean by its being made on a scale of your drawings.

A. 62. I mean that it has been made after the drawings in my patent No. 197,689, that the length and width and in all particulars, that it is as near the drawings in said patent, on an enlarged scale as I was able to get it.

Q. 63. What sized body, in the trade, would this exhibit just re-

ferred to represent; a two-seated vehicle, that is a vehicle for two persons or a one-seated vehicle, that is a vehicle for one person?

A. 63. That would represent a buggy that we in the trade call three-quarter seat, intended for one large person or for two small persons.

Q. 64. Suppose that spring, on "Complainant's Exhibit Three Prime (3′)," was placed upon "Complainant's Timken Exhibit One Prime (1′)," how far would the heavy ends of the springs be from the outer side of the body?

A. 64. Five inches and three-quarters or nearly so.

Q. 65. Please take a compass, or a rule, and measure the distance between the holes on figure two of your drawing, from center to center, which attach the spring to the cross-bar, and state what the distance is, and then measure the distance between the bolts on "Complainant's Exhibit Three Prime (3′)" which attach the spring to the cross-bar, from the center to the center of the bolts, and state what that distance is.

A. 65. The distance in my patent drawing of the bolts that attach the springs to the bottom of the body is a quarter of an inch, or very near that; and the distance on "Exhibit Three Prime (3′)" from center to center of bolts that hold the spring to the bottom of the body, is three inches or very nearly so.

Q. 66. Please measure the distance between the bolts from center to center which hold the spring to the cross-bar in "Complainant's Timken's Exhibit No. One Prime (1′)" and state what that distance is.

A. 66. Three inches; the same as the other exhibit.

439 Q. 67. Mr. Timken, have you any writing or document in your possession which will show the date of lease of your carriage shop or carriage depot which you used to have and now own on St. Charles street, in the city of St. Louis—if so, please produce it.

(Objected to by defendants' counsel, because it is immaterial until its materiality be shown, and defendants' counsel objects to witness leaving the room to consult with his attorney.)

(Complainant's attorney says that the witness only stated to him that he had an agreement for the lease instead of the lease.)

A. 67. I have an agreement, dated the 23d day of November, 1876, in which the terms and conditions are stated for the building of a factory for me, by William Lucas; but the lease of said building I have not with me, but have it at my office.

Q. 68. State whether or not at the date of that agreement William Durie was in your employ, and if so, state if there is anything in connection with this agreement which makes you know that fact?

A. 68. He was with me at that time. He first spoke to Mr. Lucas or his agent about building this factory for me, and afterwards I went with him to see Mr. Lucas about it.

Q. 69. Where was your shop at that time?

A. 69. In the city of St. Louis, on Sixth street, between Morgan and Franklin avenue.

Q. 70. Was it before or after Durie came to work for you, that you put up that first cross-springed vehicle which had the springs attached to the under side of the side bar, and which worked satisfactorily?

(Objected to as not proper in rebuttal and as an attempt to make a *prima facie* case at this stage of the proceedings.)

A. 70. Durie came to work for me afterwards.

Q. 71. What was the occasion of your going over on St. Charles street from your place on Sixth?

(Same objection, and for the further reason that it is immaterial and irrelevant.)

440 A. 71. Mr. Durie had been the superintendent of Wesley Fallon's carriage factory on St. Charles street; when I hired him he said he had a large acquaintance of customers using carriages, but that he could not get them over to where my factory was on Sixth street and therefore induced me to have Lucas build a factory for me on St. Charles street, near Fallon's factory.

Q. 72. About how long before the date of that agreement was it that Wm. Durie came to work for you, if you know?

(Same objection.)

A. 72. I don't remember exactly, I should think about two months.

Q. 73. State whether or not his name appears on your hands' account book which you had in court yesterday, and from which you testified. And, if not, why not?

A. 73. I don't think it does. He was hired by the year, and his full salary paid to him every week, and therefore I had no occasion to enter his name in this book.

Q. 74. Please read the entry on page three (3) in your hands' account book of 1875. Allen Jones in account with Henry Timken, of dates 15th of June and 1st of July, and let the notary copy it in your deposition.

A. 74. "June 15th, patent buggy, $35.00."
"July 1st, to open buggy, $32.00."

Counsel for complainant asks the notary to mark page three of said book, "Complainant Timken's Exhibit Jones' Account," which is done.

Q. 75. Plaintiff's counsel asks the witness to turn to page 41 of said account book, and read the entry of date, September 11th, 1875, and let the notary copy it into this deposition.

A. 75. "September 11th, road wagon, $24.00."

Counsel asks the notary to mark it "Complainant's Exhibit Jones' Account, Page 41," which is done.

Q. 76. Witness will please read the three entries referred to yesterday in his examination of October 1st. 1875, on page 43
441 of said hands' account book from the account of George Pohrer, and let the notary copy it in this deposition.

A. 76. "October 1st, new top fair buggy, $25.00."
"October 1st, new open fair buggy, $8.00."
"October 1st, new road fair buggy, $8.00."

Complainant asks the notary to mark said page of said book as "Complainant's Exhibit George Pohrer's Account," which was done.

Q. 77. Complainant's counsel hands the witness a letter, dated April 29th, 1884, and asks the witness whether or not he received that letter in due course of mail, and if so, whether the pencil sketch was in it at the time it was received by him.
A. 77. I did; the pencil sketch was in it at the time I received it.

Plaintiff's counsel asks the notary to mark said letter "Complainant's Exhibit Joseph W. Buchannan Letter," which was done.

Q. 78. Complainant's counsel hands the witness a letter dated March 18, 1882, and signed by William H. Stickle, and asks him whether or not that letter was received by him in due course of mail.
A. 78. It was.

Plaintiff's counsel asks the notary to mark the same as "Complainant's Exhibit Stickle Letter," which is done.
Complainant's counsel hands the notary the agreement between William Lucas and Henry Timken referred to above by the witness and dated the 27th day of November, 1876, and asks the notary to mark it "Complainant's Exhibit William Lucas and Henry Timken Agreement," which is done.

Q. 79. Complainant's counsel hands witness a letter dated July 29, 1879, signed Wm. Blume, and asks witness whether or not he received that letter in due course of mail.
A. 79. I did.

Q. 80. State, if you can, about how long before the date of
442 this letter was it that Blume sent in his first order for Timken springs.

(Objected to unless the order is produced, and the letter is objected to because it was not shown to witness Blume nor identified by him when he gave his testimony.)

A. 80. About one month; perhaps a little more.

Complainant's counsel asks the notary to mark the letter "Complainant's Exhibit Blume Letter," which is done.

Q. 81. Complainant's counsel shows the witness a letter dated March 5, 1881, and purporting to be signed by S. E. Kierolf, and asks the witness to state whether or not he received said letter in due course of mail.
A. 81. I did.

Plaintiff's counsel asks the notary to mark said letter "Complainant's Exhibit Kierolf Letter," which is done.

Q. 82. Complainant shows the witness a letter dated May 18, 1887, signed "Wm. Blume," and asks the witness to examine said letter and state whether or not he received it in due course of mail.

A. 82. I did.

Complainant asks the notary to mark the same "Complainant's Exhibit Blume's Letter No. 2," which is done.

Q. 83. Please state what that letter was in answer to.

A. 83. That letter was an answer to an inquiry I made to find out what he knew about cross-springs.

Q. 84. Complainant's counsel hands the witness a letter dated May 16, 1887, signed J. M. Kemmerer, and asks the witness to state whether or not he received said letter in due course of mail.

A. 84. I did.

Complainant asks the notary to mark the same "Complainant's Exhibit Kemmerer's Letter," which is done.

Q. 85. Complainant's counsel now offers all these exhibits referred to in this deposition in evidence, and asks the witness if he is willing to make them a part of his deposition.

A. 85. I am.

443 Q. 86. How long was you engaged actively in the carriage business in St. Louis, and state during that time and since, whether you gave buggy springs any particular or extended attention.

A. 86. I was engaged in the carriage business over thirty (30) years in St. Louis, Mo., and I have made buggy springs a study, and have experimented a great deal with vehicle springs of different kinds, to get an easy riding vehicle.

Q. 87. State, Mr. Timken, why in your spring the side bar is slightly curved upward?

(Objected to as immaterial and irrelevant.)

A. 87. It is done to get a stronger bar; that is, it will carry a heavier weight when it is curved up than it would if it was straight, and it makes a nicer looking job; it is the general way that all side-bar vehicles are made.

Q. 88. State whether or not said slight curve is put in the side bar to take up any spread of the spring, or whether or not it operates for that purpose?

A. 88. It is not put there for that purpose. It will take up no more spread of the spring than a straight side bar will do.

Q. 89. What company made the springs which were used on these vehicles made in 1876 and 1877, which appear in the testimonials published in the "St. Louis Dispatch," testified about by you yesterday?

A. 89. They were all made by the "Spring Perch Company of Bridgeport, Connecticut," except the first set that I put on the buggy that I made in the latter part of 1875; those latter springs I had made from a set of Concord springs, in my own shop.

Q. 90. Did you ever show that first set of springs to Mr. Durie before he commenced to work for you?

(Objected to as leading.)

A. 90. I think I did.

Q. 91. When, and where?

A. 91. After I had put them under the buggy, I hitched my horse in the buggy to test them; I drove past Fallon's shop and
444 saw Mr. Durie on the pavement, and asked him to come and look at my new cross-spring, and he saw them, then and there.

Q. 92. Do you know where your shop was, and when the order for the Lupe buggy for which you got a testimonial published in the "St. Louis Dispatch" referred to yesterday, and about when it was furnished?

(Objected to as not proper in rebuttal.)

A. 92. My shop was on Sixth street between Morgan street and Franklin avenue at that time. I got the order for the vehicle which was a two-seated one, to carry four persons, in the fall of 1876. The springs were ordered some time during the winter from the Spring Perch Co., Bridgeport, Conn., and the vehicle was delivered to Mr. Lupe some time in April, 1877. He gave me the whole winter to build the job in.

Q. 93. State whether or not you have made search for those original testimonials among your papers, and whether or not you have found them yet?

A. 93. I have made search for those testimonials, but have not been able to find them.

Q. 94. State whether or not the testimonials in "Complainant's Exhibit Two Prime" are correct copies of the originals?

(Objected to as incompetent, irrelevant and immaterial.)

A. 94. They are correct copies.

Q. 95. Mr. Timken, state how long you have used cut which I show you as a trade-mark, and state whether or not you had been using it prior to the dates of the letters from Kierolf to you referred to by you in your direct examination herein?

A. 95. I think I first used the trade-mark in 1879, which was prior to the letters which I had received from Kierolf.

Complainant's counsel offers the envelope just shown to witness, and asks the notary to mark the cut thereon as "Complainant's Exhibit Timken Trade-mark," which is done.

445 Q. 96. State, Mr. Timken, whether the springs on "Complainant's Timken Exhibit One Prime" are factory-made springs, or hand-made springs.

A. 96. Factory-made springs, made by the Bridgeport Spring Company.

Q. 97. State whether or not, Mr. Timken, your trade-mark ap-

peared on your springs manufactured by all your licensees or by only a part of them.

A. 97. The contract with the spring-makers that I have licensed provides that they shall stamp the springs with my trade-mark, and also to stamp on them "patented November. 1877," and I think it is done by the majority of them, still I don't get to see but very few of the springs they manufacture, as the spring-makers sell them, and pay me the royalty.

Q. 98. Will you look at "Defendants' Exhibit Bushway's Springs" and tell me whether lips like the ones on said springs were used to hold the leaves of springs from slipping on each other as early as 1875, or whether they were held by a slot and tit?

(Objected to as it does not appear that witness is familiar with all the different kinds of springs and prior to the date inquired about.)

A. 98. I have never seen springs with lips on as early as 1875. They have only come into general use of late years, whether they have been in use before, as far back as 1875, I cannot say.

Q. 99. Have you been familiar with the springs known to the trade for the last twenty or thirty years?

A. 99. I have.

Q. 100. Did you or did you not, ever see those kinds of lips on a Concord or el-iptic spring as far back as 1875?

A. 100. I did not, that I can remember of.

Q. 101. Mr. Timken, look at "Defendants' Exhibit Briegel's Wagon Springs" and state whether in your opinion they are factory-made springs or hand-made springs, and give your reasons.

A. 101. (Question withdrawn for the present).

446 And in answer to cross-interrogatories proposed to him by GEORGE J. MURRAY, Esq., counsel for defendants, he saith:

X Q. 1. None of the wagons referred to in the "Hands' Account Book" on pages 3, 40 and 43, had springs, cross-springs, like those shown in your patent as I understand you, but only the side springs attached to the rear axle and head block; is that right?

X A. 1. The one referred to on page 3 as "patent buggy" had side springs, but I put cross-springs under it, in the latter part of the same year. The other one had no cross-springs put on it at all; I mean the road wagon.

X Q. 2. The road wagon known as the fair wagon, and which you say was made by Mr. Jones, was the same one, was it, that was referred to in the entry on page 43, as being trimmed by George Pohrer?

X A. 2. It was ironed by Mr. Jones. It was the same wagon referred to on page 43.

X Q. 3. How many road wagons did Mr. Jones iron that year or prior or subsequent to it for the fair?

X A. 3. He ironed only one that year for the fair, and I don't think he ironed any others prior to that time for the fair in any one year. I sold this road wagon made for the fair in 1875, in the spring of 1876 to Joe Lucas. He had the springs taken off imme-

diately after by Mr. Fallon, and had wooden cross-pieces put in instead of springs, which made me feel quite indignant at the time, for taking it to Fallon, and not allowing me to take them off if he wanted them taken off. By road wagon I mean a buggy to carry only one person; very narrow. Mr. Jones ironed an open buggy that went to the fair the same year; a buggy for the people, and I don't remember that Mr. Jones ever ironed another single wagon after that for the fair.

X Q. 4. May it not have been in 1876 that Mr. Jones ironed a road wagon for the fair instead of 1875?

X A. 4. It could not have been, for I sold the road wagon
447 to Joe Lucas in the spring of 1876, and the fair takes place in October every year.

X Q. 5. You think then, that year 1875, he, Mr. Jones, ironed a road wagon and top buggy for the fair?

X A. 5. He ironed a road wagon, open buggy, and a top buggy for the fair that year.

X Q. 6. These were all trimmed by Mr. Pohrer, as shown by page 43 of this book?

X A. 6. They were.

Counsel for defendants ask the notary to copy entries in said book, on page 85, as follows:

"August 19, fair top buggy, $35.00."

"August 26, fair road wagon, $20.00."

X Q. 7. Witness will please examine page 85 of said book, attention being directed to the entries above referred to, and state if this is not the buggy and road wagon which had the side springs on, and which went to the fair, and state by reference to the former pages introduced in evidence if he can find any other entry of a fair road wagon or buggy?

X A. 7. That is not the road wagon made in 1875, and did not have on side springs; the one I made in 1875 was the only road wagon I ever sent to the fair with side springs (reference being had to the road wagon made in 1875, on page 43, Pohrer's Account, where it was entered as "fair road wagon"); that was the buggy built in 1875, that had the side springs on, the same that I sold to Joe Lucas in the spring of 1876.

X Q. 8. Where do you find the year 1875 entered on page 42 or 43?

X A. 8. I find the entry on page 5, of George Pohrer's Account, 1875, which was carried over to page 42, August the 6th and October 2d; the date of the year of 1875 does not appear on page 43, but it continues the account to the end of December, and then is balanced; then on the middle of the same page of January 1st, 1876, appears, and the account is continued on the same page for the year 1876, to the month of March.

448 X Q. 9. Then you did have road wagons which were ironed by A. E. Jones in the fairs of 1875 and 1876, did you not?

X A. 9. It so appears from Jones' account that I did have a road wagon there; also in 1876, but I was not experimenting with

springs in the year 1876, on that road wagon as I was in the year of 1875.

(Last part of answer objected to as not responsive to question.)

X Q. 10. Can you state now what kind of springs you had on that top buggy and road wagon that were in the fair in 1876?

X A. 10. I think I had Brewster springs on the top buggy, but I don't remember what kind of springs I had on the road wagon, perhaps none at all, as a great many road wagons were made without any springs.

X Q. 11. Why does the entry on Jones' Account, on page 3, that you have referred to, speak of "patent buggy"?

X A. 11. It was put there, I suppose, on the account that I was trying to get a patent spring, and was therefore called a patent buggy, as it was my experiment buggy, that I experimented with.

X Q. 12. Why don't it appear in some of the other places then as patent spring or patent buggy, as you have said that you did not discover the defects in it till after the fair, or at least, when the awards were to be given?

X A. 12. The buggy finished and entered here as patent buggy, June 15, 1875, was then considered as a finished buggy with a side spring on, and therefore entered in that way. The other experimenting and changing of the springs on the same buggy was done by day work by Mr. Jones, and therefore it don't appear as a patent buggy, for the work that was done afterwards. I did not say that I didn't discover the defects in the side-spring buggies till after the fair. Sometimes the work he done by the day on that buggy was entered under the head of "jobbing," as we figured the time that
449 he and his helper had worked on that buggy, and reckoned it up what the amount would be, and then entered it as "jobbing." It was more convenient in that way, as Mr. Jones paid Mr. Joe Harrison, who was his helper, during the whole time of the experimenting on this buggy.

X Q. 13. Where is A. E. Jones now?

X A. 13. I had a letter from him, I think eight or nine months ago, which was dated from New York city; since that I have heard nothing more of him.

X Q. 14. How many of the parties that you named, whose names appear as signers of the testimonials in the paper "Complainant's Exhibit Two Prime (2')," are still living and in business in St. Louis?

X A. 14. I believe they are all living and in business in St. Louis.

X Q. 15. When did the Spring Perch Company make the first set of springs for you like what is now known as the Timken spring?

X A. 15. It was some time during the year 1876. I could not say just when.

X Q. 16. Wouldn't your books show?

X A. 16. I think not.

X Q. 17. When you put the first set of cross-springs which you say

you made yourself, or had made in your shop, under your experimenting buggy, and tested them, you were satisfied that you had attained the objects that you were aiming at, were you not?

X A. 17. No, I was not. The first set I put under were the side springs with large curves on the ends, which I cut in two, and put under them with the small ends fastened on top of the side bars, did not work satisfactorily.

X Q. 18. Then, the next thing you did, was to change those springs, and attach the thin ends underneath the side bars and tested them. Did those springs work satisfactorily?

450 X A. 18. They did. I perhaps made some little changes afterwards in the sweep, and in the heft of the springs.

X Q. 19. How long was it after the first pair of springs were placed under the buggy with the ends curved over the side bars was it till you made the change and passed the ends under the side bars and attached them under the side bars?

X A. 19. I think it was in November or December, the same year; I worked on these experiment springs off and on where I had time and was not too busy with other work.

Adjourned to Monday, September 26th.

X Q. 20. Were the first springs that were put on that experimental buggy the same as those shown in your patent here in suit, and were they attached to the buggy bottom and side bar in the same position and in the same manner as shown in said patent? I mean the springs that had their thin ends attached underneath the side bars.

X A. 20. They were the same as near as I can recollect, as shown in the drawings of my patent, No. 197,689, as shown in Fig. 1 in the drawing and Fig. 2. In the drawing in Fig. 3, the springs are not shown in the drawing the way I made them.

X Q. 21. Were they in the same position with relation to each other as shown in Fig. 2 of the drawing, and did they or not have any other attachments connected to them, or to the bodied bottom in proximity to them?

X A. 21. I think they were the same with the exception that they might have had three bolts instead of two where they were bolted to the bottom of the body, otherwise they were the same.

X Q. 22. Were there not angle pieces secured to the buggy bottom and projecting down parallel with the edges of the springs, on that first experimental buggy referred to?

451 X A. 22. Do you mean attached to the springs and to the body?

X Q. 23. No, sir. I mean secured to the bottom, and projecting down parallel to the edges to the springs, but not attached to them?

X A. 23. No, sir; they were not.

X Q. 24. State just what instructions you gave Mr. Jones, if you gave him any, which enabled him to make these springs and attach them to that experimental buggy? Give the conversation verbatim if you can.

X A. 24. I got a set of Concord springs; then told Mr. Jones to

cut them in two in the center, and give them a double sweep. I marked it off with a piece of chalk on a piece of board to show him what kind of shape I wanted; that is, I had him to turn the small end of the springs upwards, and told him to make them the right length, so that they would work between the side bars when they were attached with their light ends underneath the side bar, and with their heavy ends to the cross-bar on the bottom of the buggy at the opposite side from where they were attached to the side bars. After they were made we bolted them to the cross-bars as described, and then attached them to the side bars to permanent shackles, which allowed the springs to work when the body moved up and down. The double curve in the springs I found would take up the elongation, and allowed the body to move up and down with but very little strain on the side bars.

X Q. 25. Who, if any one, was present during that conversation?

X A. 25. I do not remember. There might not have been any one, and there might have been a half dozen. I had three other blacksmith forges in the same room, where other men were working.

X Q. 26. Where did that conversation take place?

X A. 26. In the shop.

X Q. 27. What shop?

X A. 27. In my factory; I think it was in the blacksmith
452 shop; it might have been in the wood shop. I made a great many drawings of different shapes of springs during that time.

X Q. 28. Where was your shop located at that time?

X A. 28. In the city of St. Louis, on Sixth street, between Morgan and Franklin avenue.

X Q. 29. When did you move from that shop into your new factory which Mr. Lucas built for you on St. Charles street?

X A. 29. In the month of April, 1877.

X Q. 30. What became of that experimental buggy having the cross-springs made from the double-sweep Concord springs which you have last spoken of?

(Question objection to, as it is misleading in that it states that they were made from double-sweep Concord springs.)

X A. 30. I didn't make them from double-sweep Concord springs. I made them from Concord springs, and had Mr. Jones put the double sweep into them; at least I should not consider, or don't believe that they were double-sweep Concord springs. If they were they did not have the right shape, and I had Jones shape them over.

X Q. 31. Well, with your amendment to your question, what became of that buggy?

X A. 31. I used it myself until about the middle of the year 1876, and then sold it to Mr. John M. Sellers, who afterwards gave me a testimonial which appeared in the "St. Louis Dispatch."

X Q. 32. How much did Mr. Sellers pay you for that buggy?

X A. 32. That I do not remember.

X Q. 33. Won't your books show the date of sale and the amount paid for that buggy?

X A. 33. I have not been able to find the book that the date of sale appears in.

X Q. 34. Did you sell Mr. Sellers a buggy of any kind in the spring of 1877?

X A. 34. I do not remember; perhaps I did. I sold Mr.
453 Sellers quite a number of buggies at different times.

X Q. 35. Will your books show the dates of any of those sales prior to 1878?

X A. 35. I think they will. I have a blotter that Mr. Durie, my superintendent kept, where I think he entered all the sales that were made after he came with me in the fall of 1876. This Sellers buggy was sold before that time; that is, I mean the experiment buggy.

X Q. 36. Will you produce that blotter and point out in it the entry of sale of any buggy other than the experimental buggy, to Jno. M. Sellers, prior to 1878?

X A. 36. I will; it is at my office.

X Q. 37. From what was the drawings attached to your patent, 197,689, made?

X A. 37. From a model.

X Q. 38. Who made that model, and where was it made?

X A. 38. It was made at my factory. I do not just remember who made it. One of my men, under my instructions.

X Q. 39. When was that model made?

X A. 39. It was made not very long before I applied for my patent.

X Q. 40. What instructions did you give to the model-maker which enabled him to make that model? I refer only to the springs.

X A. 40. I had the wood-work of the model made, and then instructed Mr. Jones to make the springs for it, as I wanted to send it to Washington to take out a patent.

X Q. 41. Well, what instructions did you give Mr. Jones?

X A. 41. To make a set of springs for that model.

X Q. 42. Is that all?

X A. 42. I don't just remember. We talked a great deal at that time about that style of buggy and the springs, and about getting up a model.

454 X Q. 43. Did that model correctly represent the springs that were under that experimental buggy which you said you sold to Mr. Sellers?

X A. 43. They did very nearly so with the exception that they were made of a single plate of steel. The buggy I sold to Sellers had more than one plate to the springs.

X Q. 44. How long was that model made before you applied for your patent?

X A. 44. That I don't remember; perhaps a week, perhaps longer.

X Q. 45. Was it a month, or two months, or three months, or how much longer?

X A. 45. I am pretty certain it was not three months.

X Q. 46. How long was it before you ordered any springs from the Spring Perch Co., of Bridgeport, Conn., that that model was made?

(Objected to as misleading, because the witness has not stated that the model was made before he ordered springs from the Spring Perch Co. of Bridgeport, Conn.)

(Defendants' counsel protested against such objections spoken in the hearing of the witness so manifestly improper and suggestive of the answer desired.)

X A. 47. Do you mean cross-springs that I use in my invention?

X Q. 48. Certainly, that is the only spring named here?

X A. 48. I ordered the first springs in the year 1876.

X Q. 49. What time in the year 1876?

X A. 49. I think it was in the spring; I wouldn't be positive though.

X Q. 50. How many sets of cross-springs did you get from the Spring Perch Co., in the first invoice or shipment?

X A. 50. Only one, I think.

X Q. 51. When did you receive the second invoice?

X A. 51. That I can't say; it was in the latter part of the year 1876.

X Q. 52. How many pairs or sets of springs did you receive in that invoice?

455 X A. 52. That I don't remember; I bought other styles of springs of them in the same year.

X Q. 53. What title did the Spring Perch Co., give to this particular spring in its invoices, and what price did you pay for them per pair or set?

X A. 53. I don't think they had any title for them, at that time; they made them after drawings that I sent them, and they sold them to me by the pound, the same as they did other springs.

X Q. 54. How much per pound did they sell them at; I mean this particular spring?

X A. 54. That I do not now remember; I think somewhere in the neighborhood of 20 cents.

X Q. 55. Did the Spring Perch Co. charge you the same price per pound for your first set of springs and for your second invoice of springs that it charged you for the ordinary springs you were purchasing from it, at or about the same time?

X A. 55. No, sir; they charged more, for these springs were made after patterns.

X Q. 56. How much more per pound?

X A. 56. That I can't say, perhaps five cents; it depended on the kind of steel they use in the springs to a great extent.

X Q. 57. Have you letter-press copy of the first order you sent to the Spring Perch Co., at the time you sent them the drawings to make the first set of springs like those in your patent, or the original bill, or bill of lading for the first set of springs, or the invoice for the second set of springs?

X A. 57. I have no letter-press copy, and no bills or invoices. I at that time kept my own books, which was rather in a crude state.

X Q. 58. During the time you, yourself, was using that experimental buggy, which you say you sold Mr. Sellers, where was it kept?

X A. 58. It was kept part of the time in a stable, at my
456 house, that is during the night; and daytime it was generally at my factory, as I used it for riding in and out from my house to the factory.

X Q. 59. To whom did you sell the second buggy having cross-springs like those shown in your patent?

X A. 59. That I don't remember; I think it was to some of the parties whose testimonials appear in the St. Louis Dispatch. The blotter that I have that Mr. Durie kept will perhaps show it.

X Q. 60. How long were you manufacturing and selling vehicles in St. Louis prior to 1875?

X A. 60. I commenced manufacturing buggies when I was 24 year old; that is I carried on shop of my own at that age.

X Q. 61. When did you first exhibit buggies at the St. Louis fairs?

X A. 61. That I do not remember; I exhibited some in 1874—perhaps sooner.

X Q. 62. Did you exhibit any in 1877, 1878 and 1879?

X A. 62. I think I did.

X Q. 63. When, if ever, did you first exhibit at the St. Louis fair, a buggy or wagon having cross-springs like those shown in your patent?

X A. 63. In the first part of October, 1877. I will not be positive, that I then exhibited a finished buggy, but I know I had a buggy gear and I am pretty certain I had a finished buggy also. This gear I had laying on the floor at the fair and used it to jump on and test the springs in showing it up to the people.

X Q. 64. If, as you say, you were satisfied in the fall of 1875 that you had obtained the objects you were aiming at in producing an easy riding buggy by means of these cross-springs, why did you delay nearly two years after that time before applying for your patent?

X A. 64. I knew I had two years' time to apply for that patent, and therefore was in no hurry. I was at that time rather a poor man, and one reason was that I did not want to spend the money just then.

457 X Q. 65. Was this the first patent you ever made an application for?

X A. 65. No, sir; I think not.

X Q. 66. When did you make application prior to this one for a patent?

X A. 66. I don't just remember. I think I took out a patent for a shifting-seat buggy; also for a foot on a seat or bench, to hold it down to the floor, and may have taken out another one; I don't remember.

X Q. 67. What year or years did you apply for these patents?

X A. 67. That I do not remember, as those patents did not amount to anything much; therefore I have not given them any further thought.

X Q. 68. Were the applications for these patents made before or after the year 1875?

X A. 68. Before.

X Q. 69. Did you make application for a patent on the form of springs or gear like the buggy you say you had in the fair of the fall of 1875? I mean the one with the side springs attached to the rear axle and head block. Or like the "experimental buggy" when it was fitted up with side springs.

X A. 69. I did not have a buggy in the fair of 1875 with side springs. I did not make application for a patent of the side spring that I had on the buggy, before I put cross-springs on.

X Q. 70. Then you did not have, as you have just stated off the record, buggy or road wagon at the fair, in 1875, with side springs attached to the rear axle and head block?

X A. 70. I wish to have the former question read, as I don't think I understood it right.

I wish to change that answer, (answer to question 69), as I understood the question to read 1877 instead of 1875, I did not make application for a patent for the side-spring buggy, or one similar that I had at the fair in the fall of 1875.

458 X Q. 71. The correction made in your last answer, after you had been informed by Mr. Eccles that you did have such wagon or buggy in the fair of 1875, was it not?

X A. 71. I did not understand Mr. Eccles to say that; that I discovered, that I had made a mistake in the date of the year.

X Q. 72. Did that buggy which was ironed by Mr. Jones, June 15th, 1875, as appears in entry on page three of your Hands' Book, have your patent jump-seat on it?

X A. 72. It did not.

X Q. 73. I notice on the same page 3, you have under date of May 8th, "1 b'y, jump-seat, $35.00," and in the margin opposite said entries in May, "July 1st, fair work," and under date of May 1st, "1 b'y top jump-seat, $35.00." How do you tell from this book which one of these buggies it was that was afterwards changed to have the cross-springs applied to it?

X A. 73. The buggy that had the cross-springs afterwards applied to it was not made for a fair buggy. It is the buggy that was entered here June 15th, as pat. buggy, that was the experiment buggy. The others were my regular standard buggies I was building. Where the entry in the margin is made, July 1st, fair work, has nothing to do with the work that is opposite that entry.

X Q. 74. What was that entry placed on the margin for?

X A. 74. That, I don't remember.

X Q. 75. How many vehicles did you have at the fair in 1875?

X A. 75. That I do not remember. I had three. One top buggy, one open buggy and one road wagon that was specially made for the fair, that was finished up extra fine. I may have had others there.

X Q. 76. Did you receive any award for the spring or vehicle having the springs of your patent on it, at your exhibited at the fair of 1877?

X A. 76. I think I did.

459 X Q. 77. What was it you received; a diploma, or a medal, or what?

X A. 77. I think it was a silver medal.

X Q. 78. Was that the first silver medal that you received at any of the St. Louis fairs for work exhibited by you?

X A. 78. No, I think not.

X Q. 79. When before 1877 did you receive a silver medal, and for what was it awarded?

X A. 79. I think I received a silver medal for a buggy in 1873, also a diploma, I think.

X Q. 80. But you are sure you received a silver medal for the vehicle having your patent springs on, at the fair of 1877, are you?

X A. 80. No, sir; I received the silver medal for the best buggy spring, as there was an award offered for the best buggy spring and not for the best buggy with the best spring under it.

X Q. 81. That spring that you received the award for was the patent spring here in suit, was it?

X A. 81. It was.

X Q. 82. And that award was made to you for your patent spring the first time you exhibited it at the fair in 1877, was it?

X A. 82. I think it was. I got premiums on the springs for several years afterwards at the fair. I may be able to find that silver medal at my office or at my house yet.

X Q. 83. You got the award of a silver medal the first year you had it in the exposition, and also for awards in subsequent years? How many silver medals did you receive as rewards for your patent springs in the St. Louis fair?

X A. 83. I think I got the award the first year, still I would not say positively; I got awards, I think, for about three or four years on the spring.

460 X Q. 84. Well, are you sure that you got an award of a medal, a diploma, or honorable mention, for the spring here in suit, in the year 1877, or the first year it was exhibited at the St. Louis fair?

X A. 84. The spring was exhibited the first time at the St. Louis fair, in 1877, but I won't say positively that I received a medal first for it that year; I believe I did.

X Q. 85. In what department of the fair was that spring entered the first time it was exhibited at the St. Louis fair?

X A. 85. In the carriage department.

X Q. 86. You say you think you can find the first medal that was awarded you by the St. Louis fair for these springs; will you please search for it, and if you can find it, exhibit it to the notary and let him make a copy of the inscription on it?

X A. 86. I will.

X Q. 87. You are not sure, are you, whether you had a set of these springs on a vehicle at the fair of 1877, in addition to the

frame or platform which you say you used for exhibiting the quality of the springs by jumping upon it?

X A. 87. I think I did have a buggy there with them on, but wouldn't say positively.

X Q. 88. How many exhibits did you have at the fair of 1877?

X A. 88. I don't remember; perhaps half a dozen.

X Q. 89. Under what name did you enter this particular spring at the fair of 1877, or subsequent fairs?

X A. 89. I think the heading in the fair catalogue was "The best spring coupling;" I believe that was the heading.

X Q. 90. And it was under that heading that the award was made to you, was it?

X A. 90. I think that was the heading; it might have been the "Best buggy spring;" I won't be positive.

X Q. 91. Do you consider that "Complainant's Priest Exhibit One" contains the invention shown, described, and claimed in your patent, No. 197,689?

461 X A. 91. I do not.

X Q. 92. Do you consider the springs, "Defendants' Exhibit Priest's Springs Numbers One and Two," contain the invention claimed in your above-named patent?

X A. 92. I do not.

X Q. 93. Suppose the loose links in "Complainant's Exhibit Priest's Number One," were removed, and the springs attached to the side bar by rigid shackles or by what is known to the trade as the Brewster shackle, would said exhibit then contain the invention claimed in your aforesaid patent?

X A. 93. It would not.

X Q. 94. Suppose the vehicle or gear, "Complainant's Priest Exhibit Number One," changed as indicated in the last question, had the side bars attached to the hind axle and head block instead of being attached to cross-springs, would the exhibit then contain the invention claimed in your aforesaid patent?

X A. 94. It would not.

X Q. 95. If the loose shackles shown on "Defendants' Exhibit Priest's Springs Number One" were removed, would the springs then contain the invention claimed in your patent?

X A. 95. They would not.

X Q. 96. Why would these exhibits changed as described in the former questions not contain the invention claimed in your patent, here in suit?

X A. 96. In "Complainant's Priest Exhibit Number One," the heavy part of the springs are attached to the cross-bar by a clip-bolt, and from there taper to both ends and produce a spring on both sides from where they are attached to the cross-bar.

"Defendants' Exhibit Priest's Springs Number One," are attached to the cross-bar at their heavy part by one bolt, and then taper down to both sides and allows them to spring on both sides from where they are attached to the cross-bar.

X Q. 97. If the center bolt of the three bolts of "Defend-
462 ants' Exhibit Priest's Springs Number One," passed through

the wooden bar as well as through the springs, would your opinion be the same, or different?

X A. 97. They would then not be the same as my invention, as the small ends of the springs are too straight to allow the body to move up and down between the side bars.

X Q. 98. If the small ends of the springs were curved as shown in your patent, or in the Tilton patent, or Salladee patent, here in suit, would these springs then contain the invention shown in your patent 197,689?

X A. 98. If the springs in "Defendants' Exhibit Priest's Springs Number One" were bolted permanently by two bolts at their heavy parts to the cross-bar, and otherwise the had sweep and shape of my springs, with the small end of the main plate of the spring where it is attached to the shackle in the side bar was turned up and then the leaf curved around the other way, then the invention would be the same as mine. The springs in "Complainant's Priest Exhibit One," taper at both ends from the heavy part, and could not be bolted rigidly to the cross-bar, for it shows a different made spring and of different shape from "Complainant's Timken Exhibit Number One Prime."

X Q. 99. Then you regard the sweep and shape of your springs as an essential feature of your invention?

X A. 99. It is not absolutely necessary to have that sweep. I could use swinging shackles if I wished in my invention, but when I use permanent shackles it requires a double sweep in the spring to take up the elongation of the spring, to allow the body to move up and down; if there was only one curve in the springs, if they were attached permanently to the side bar in that way they would have to force the side bars to move in and out, or else the body could not swing up and down.

X Q. 100. But when you use swinging shackles with your inventions, the springs may have only a single curve or no curve at all. Is that right?

463 X A. 100. They must have a curve, or there could be no spring in them; that is, all springs must have a curve or they would lay right along the bottom of the body, and there would be no spring to them; but the swinging shackle will take up the elongation of the springs if there is no double curve in them.

X Q. 101. Please examine "Defendant's Exhibit Matlock Springs" and state whether these springs contain the invention of the Timken patent here in suit, No. 197,689?

X A. 101. They do.

X Q. 102. Have these Matlock springs the length of spring you spoke about which made your vehicle an easy riding one, and would they be attached in use to the opposite sides of the body, and then crossing each other being connected to the side bars, substantially the same as in your patent?

X A. 102. These springs are attached across the center of the bar, which would be the bottom of the body, and thereby gain more length of spring than they would if they were attached to the same

side of the bottom of the body at which they are attached to the side bars, or were made in one piece like the Brewster spring, and attached to the bottom. My object and invention is by attaching them across the center of the bottom of the body at the opposite side from where they are attached to the side bar, to gain length of spring and an easy motion.

X Q. 103. Would these Matlock springs have any spring action on the opposite side of the body from that side adjacent to the side bars to which the light ends of the springs are attached?

X A. 103. No, sir, they would not; but if they were not attached on the opposite side, they would not have the same length of spring or elasticity on the side adjacent to the side to where they are attached to the side bar; that is, they could not be held
464 there at all, unless they were attached across the center, and get the same length of spring.

X Q. 104. If each of the bolts nearest the lighter curved ends of the springs, in these Matlock springs, were made one inch nearer to the curved ends of the springs than they are now in this exhibit, would the springs then contain the invention of the Timken patent here in suit? Or in other words, if the springs were moved outward in opposite directions an inch, and attached to the cross-bars as they are now attached, would the springs so changed contain the invention claimed in your patent?

X A. 104. The springs in the Matlock spring are not both attached alike; the one with the bolt nearest to the small end of the spring is attached at the center of the bar, and the other one is attached one inch from the center of the bar, nearest the small part of the spring. If that bolt was moved towards the small part of the spring so that it would be attached two inches nearer the side where the small end is attached to the side bar, I then would consider that it would not be a- infringement, as in that case the bolts would attach the springs in the same position to the cross-bar as the Brewster springs are attached. The other spring that is attached at the center of the cross-bar with a bolt nearest to the small end, if that bolt was moved two inches nearer the side from the center to where the small end is attached to the side bar, so that there would be four inches between the two bolts,—that is between the bolts nearest the small ends of the springs, which would give it no more spring than you can get out of a Brewster spring, or a spring made in one piece.—then it might not be an infringement of my spring. My object in getting an easy riding spring was to get length of spring; therefore, I attached the spring across the center of the bottom of the body.

X Q. 105. Then if I understand you correctly, if the two bolts nearest the curved ends of the springs in this Matlock Exhibit were only two inches apart, or each, one inch from the center line
465 of the bar nearest the curved end of the spring, the exhibit would contain the invention claimed in your patent. But if they were each two inches from the center of the bar, they would not contain the invention of your patent. Is that right? If not please correct it.

(Objected to by complainant's counsel as misleading, in that it doesn't state whether the bolts are to be moved on the spring, the springs remaining in the position they now are, or whether the bolts are to be moved on the bar, and the springs respectively moved on the bar with them; and for the further reason it is a question for construction of law for the court.)

X A. 105. I mean if the springs were moved along the bar towards the side to where they are attached to the side bar, so that the heavy ends or the bolts in the heavy ends were moved so that they would, or that the bolt in the heavy end would, come within one inch and a half, and the bolt nearest to the small end would be one inch and a half from the center of the cross-bar, nearer to where they are attached to the side bar, so that the fastenings of the two springs would be in the same position as a single spring would be on a Brewster spring, then I think it would not be an infringement; as in that case they would gain no more length of spring than they could in a spring that was made in one piece.

X Q. 106. Then any change in the fastening of the springs that would bring the outer fastenings of the springs nearer to the center of the body, and thereby give more spring action to the spring, would be within the invention claimed in the Timken patent, no matter how slight the change might be; is that right?

X A. 106. Do you mean at the heavy end?

X Q. 107. I mean of course at the heavy ends—the ends that are attached to the spring bar. Or if you don't understand the question, I will state it again in a different form. As I understand your former answers, the Brewster spring has three inches of dead metal in the center of the body, and if these sectional springs had the same amount of dead metal in the center they would not
466 contain the Timken invention; but if they had less dead metal than the Brewster, however little that might be, they would contain the Timken invention; is that what you mean?

(Objected to for the reason that it is a question for the court to decide and not for the witness.)

X A. 107. That would be my idea. If they had less metal they could not be held in position, but the Brewster springs have more than three inches of dead metal. I mean if they had less dead metal than the Brewster spring.

Adjourned to Sept. 27th, 2 p. m.

Witness, before proceeding, asks permission to make further explanation as regards the last two questions and answers:

WITNESS: One feature of my invention is that they will regulate themselves or adjust themselves to the different widths of the bodies and gears. For instance, if a body and gear is made wide, the heavy ends of the springs will come nearer the center of the bottom, and if they are drawn still further apart by an extra wide body and gear, the bolt nearest to the small ends of the springs may be attached on the same side from the center of the body to where the

spring is attached to the side bar. As long as the bolt nearest to the heavy end is on the opposite side to the center of the bottom of the body, that it is then still my invention or a part thereof. If the same lengths of springs are put on a narrow body they will be shoved further across, and if the body is very narrow they will be shoved clear across so as to accommodate them in that small space, and still give them the same length of spring. The different carriage-makers make different widths of bodies and gears and they can use my springs for the different widths without alterations of the springs any further than where they are attached. In a Brewster spring, or any other spring made in that shape, they will
467 have to be made to the exact length to suit the width of each different kind of buggy or vehicle.

X Q. 108. From your last explanation I understand that you claim that all sectional springs constructed to have their heavy ends attached to the bottom of the vehicle, and their light ends connected to side bars, are within the claim of the Timken patent, here in suit; no matter in what position the heavy ends may be attached to the buggy bottom or spring bar, so long as the bolt nearest the heavy end is upon the opposite side of the body center from the side nearest the attaching shackle; while in your testimony last evening you did not consider any sectional spring within the claim of the Timken patent, unless the bolt nearest the light end of the spring was less than an inch and a half or two inches from the center line on the same side as the attaching shackle. Now which of these views is right?

(Objected to because the question is misleading, and second, because it is an effort to make the witness construe the claim of his patent, which is the province of the court and not the witness.)

X A. 108. Last evening, I don't think I understood or comprehended the questions. All sectional springs that are made, and attached as they are in my invention, I should say are an infringement.

X Q. 109. Then you would consider the Matlock springs about which you testified last evening to be within the claim of your patent, if they were moved out in opposite directions a sufficient distance to leave the two bolts nearest the light end on the same side of the buggy body as the attaching shackle and the bolts nearest the heavy end on the opposite sides of the centre line;—is that the way in which you now wish to be understood?

X A. 109. I don't know as I am competent to answer that question, as I suppose that would have to be decided in court. To move the springs in and out, I should consider would be a part of my inventions.

468 X Q. 110. Then you think one of the features of your invention is the construction of sectional springs so that the same spring may be used for different-sized vehicles;—is that right?

X A. 110. That is the natural result of the way the springs are made, which would be produced by different widths of vehicles.

X Q. 111. Then if these same Matlock springs were used upon a very wide vehicle which would necessitate spreading them apart, so that the heavy ends would not overlap or come up to each other, they would still be within the Timken invention, would they?

X A. 111. I don't know that I am competent to say whether they would or would not. A spring made after my shape and pattern could be attached without alteration to the spring bar, in that way.

X Q. 112. Well, if attached in that way, would they still have the advantages of the Timken invention?

X A. 112. I could not say whether they would or not in all particulars.

X Q. 113. Well, what do you think about it? Give us your opinion.

(Objected to as it — an effort to make the witness construe the claim of his patent and he has already stated that he don't think that he is a competent judge.)

X A. 113. Well, I am not able to say whether they would or not.

X Q. 114. You said yesterday that the shape of the spring was not an essential feature of your invention; that the shape might be varied, depending on the kind of shackle used to attach it to the side bars. Are you of the same opinion still?

X A. 114. I did not think that I said so yesterday.

X Q. 115. The notary will read to you your answer to cross-question No. 99, and after having heard it, please answer the former question.

(Notary reads X question and X answer No. 99 to witness.)

X A. 115. The springs could be used in either way; but I am not competent to say or to construe the meaning of the law on that point.

469 X Q. 116. In your direct examination and during your cross-examination, yesterday, you seemed to be very willing to state just what your invention was; what you considered to be within and outside of the invention—in fact, seemed to be entirely competent to testify as an expert in relation to your invention and its standing in the art to which it relates; while today you confess yourself incompetent to define what your invention is, or in what it consists. Has anything occurred since the last adjournment that could account for this change?

(Objected to because it is an attempt to put into witness' mouth something that he has never said—namely, to confess that he was not competent to explain the mechanical construction and operation of his springs, and other spring exhibits, when in fact he has only said that he was only incompetent to construe the scope of his claim.)

X A. 116. There has nothing occurred to account for any change. I have explained my invention I think thoroughly; but I think it is a question for the courts to decide the case as to the limits of my invention.

X Q. 117. And you have been so informed by your attorney since the last adjournment, have you not?

X A. 117. I have been informed of that fact several years ago.

X Q. 118. But it was particularly impressed on your mind since the last adjournment, was it not?

X A. 118. I have thought a good deal about the testimony in this case, and particularly so since last night's adjournment.

X Q. 119. And have had quite lengthy consultations with your attorney since then in relation to your testimony, have you not; and the law bearing on the subject you are testifying about?

(Objected to as calling for the confidential conversations of attorney and client.)

X A. 119. I have had some conversations since that with my attorney; I don't just remember what it was.

X Q. 120. You don't think then that the law requires an
470 inventor to particularly point out and define his invention—clearly distinguishing it from what was old and well known, either at the time he makes his application for his patent, or when he asks protection of the court; but that after he has obtained his patent he may take the stand and testify as to the time he made the invention, the advantages of his invention, and leave the court to spell out what it is?

X A. 120. I think I have explained the workings and operation of my invention so clearly that a child could understand it.

X Q. 121. In your testimony, or in your patent—which do you mean?

X A. 121. I mean in my testimony, and also in my patent.

X Q. 122. If I understand your testimony yesterday, and your patent, your invention consisted in getting an easier riding spring than the Brewster, and that object you accomplished by getting greater spring action, or longer springs, extending from the side of the vehicle across the bottom, and attaching them to the side bars at the opposite sides of the vehicle from where the heavy ends were attached to the body; while today you think, if I understand your testimony, that the object of your invention would be attained by sectional springs arranged in pairs and attached or partially secured to the bottom of the vehicle on the same side of the body of the vehicle as the light ends are shackled to the side bar; now which is right?

(Objected to, because it tends to mislead the witness, and get him to assert that one is right and the other is wrong, when both of them might be right, and both might include his invention.)

X A. 122. The object of my invention is, to get a long spring that can be put into a small space, and that can be adjusted with the different widths of the bodies, and still keep the same elasticity—that is part of the invention.

X Q. 123. What is the other part or parts of it?

471 X A. 123. To hang the body low, so that — is easy to get in and out of, and make a nice-appearing vehicle.

X Q. 124. Any other parts to your invention?

X A. 124. Those named are the principal parts.

X Q. 125. Can the body be hung lower with your springs than the Brewster spring, which preceded your invention; and is it hung lower by carriage-makers in practice?

X A. 125. As a general thing, it is hung lower than the Brewster. There may be some exceptions.

X Q. 126. Isn't it practicable to hang a Brewster body quite as low as a body can be hung with your springs—and even lower than it is possible to hang a body with the Timken springs?

X A. 126. A body with a Timken spring can be hung lower than a body with a Brewster spring, and as a general thing they are hung lower than the Brewster spring.

X Q. 127. Is the vehicle gear, "Complainant's Timken Exhibit One Prime," put up in about the way the Timken buggies are usually constructed? I mean is the body hung in about the same height as the usual Timken buggies?

X A. 127. Some carriage-makers order their springs higher, that is with more curve in them, than others; a great many of them have the springs made lower, which will hang the body lower than in this exhibit.

X Q. 128. Then the main difference between your spring and the Brewster, consists in the fact that you have a longer spring, and therefore more spring action? That is right, is it?

X A. 128. I claim that I have an easier riding spring than the Brewster, when it is put in a small space, and gives better results.

X Q. 129. And that is because you have greater length of spring, or more spring action; is it not?

X A. 129. The longer you can get the spring the more ac-
472 tion you can get into it, and that is one of the objects that I attain in my invention.

X Q. 130. You are familiar with the Tilton patent and which you now own, and upon which you have brought suit? Has the springs of that patent got more or less spring action than the Timken spring also involved in this suit? And can the body be hung as low with those springs as it can be with the Timken springs?

X A. 130. I have never built a vehicle with the Tilton spring on, and therefore would not be able to answer that question correctly.

X Q. 131. Have you never seen one of the Tilton springs in use?

X A. 131. I have. I saw one in New York city at the time I bought this patent.

X Q. 132. Wouldn't you be able to answer cross-question 130 from your recollection of that spring you saw in use, and from an examination of the Tilton's reissued patent here in suit, a copy of which you have in your hand?

X A. 132. I wish to correct my answer there. I saw a vehicle with a Tilton spring in Mr. Stiver's repository in New York, but it was not in use, but standing in their repository for sale. I don't know as I would be able to say just how high that body was hung and how much elasticity there was in the springs. The vehicle

that I saw there had the springs bolted together at their crossing point, and apparently there was not much elasticity in them.

X Q. 133. But it had the full elasticity of the springs from the points at which it was shackled to the side bar to the center of the vehicle body or to the bolt "D" which pivotally connected each pair of springs?

X A. 133. I think it had.

X Q. 134. If the pivot bolt "D" of the Tilton spring were removed, how would the springs then differ from the springs of the Timken patent in principle of construction and mode of operation.

473 X A. 134. The Tilton springs have double-swinging shackles which would allow the body to swing sideways, and also endways, and the operation would be entirely different from the Timken.

X Q. 135. How would it be if rigid shackles of the Brewster spring were substituted for the swinging shackles of the Tilton springs, either with or without the pivot bolts removed; would these springs so changed operate in substantially the same manner or substantially in a different manner from the Timken springs?

X A. 135. If the springs with the pivot bolt "D" in, were fastened to rigid shackles, they would not allow the body to spring up and down without straining the side bars; if the pivot bolt "D" was taken out, the heavy ends of the springs where they are bolted to the cross-bar with only one bolt, could not hold the springs in their places; at least I think so, but could not say positively, as I have never seen them tried in practical operation.

X Q. 136. Well, assume that the heavy ends of the springs had two bolts instead of one—and the pivot bolts removed and the light ends permanently shackled to the side bars, would the springs then operate in substantially the same or substantially in a different manner from the Timken springs?

X A. 136. If they were attached the same as the Timken spring they would operate substantially in the same manner—at least so I should suppose from the drawing, though I have never seen them tested and could not say positively.

X Q. 137. But if they were constructed substantially in the same manner as shown and described in the Tilton patent, then they would not operate in substantially the same manner as the Timken springs—is that right?

X A. 137. That's right, I think.

X Q. 138. Suppose the middle bolt in "Defendants' Ex-
474 hibit Priest's Springs No. One" extended through the spring bar and was bolted down tight, would the springs then operate when attached for use in substantially the same or in a substantially different manner from the Timken springs?

(Objected to because the question is indefinite, and because it doesn't state whether the springs are to be attached to the side bars by rigid shackles, or by the swinging shackles, or links, which it now has on.)

X A. 138. They would not operate the same as the Timken.

X Q. 139. Why?

X A. 139. They have swinging shackles on the ends, which would allow the body to swing sideways and strike against the side bars.

X Q. 140. How would it be if they were rigid instead of swinging shackles?

X A. 140. I don't think that they would allow the body to swing up and down in the shape they are now, without straining the side bars.

X Q. 141. Why—because they haven't enough curve in the ends?

X A. 141. Yes, sir.

X Q. 142. Which, if either of the Exhibits Kierolf's Springs, Kunkle Bros.' Springs, Bushway's Springs, or Priest's Springs No. 2, do you consider substantially the same in principle of construction and mode of operation as the springs shown, described, and claimed in your patent, here in suit?

X A. 142. The Priest and the Bushway springs are a different invention from mine, claimed in my patent. The Kierolf spring is something or nearly the same as my invention. The Kunkle Brothers is also somewhat or nearly the same as mine.

Adjourned to 9 a. m., September 28th, 1887.

X Q. 143. Did you find the silver medal which you say was awarded you by the St. Louis fair for the spring, or the spring
475 coupling, spoken of in the former part of your deposition?

X A. 143. I have not been able to find it.

X Q. 144. If the springs on "Complainant's Timken Exhibit No. One Prime," were changed or placed on the gear, "Complainant's Priest Exhibit One," instead of the springs that are now on it, and attached to the side bar with rigid shackles, would the gear so changed contain the invention claimed in the Timben patent?

(Objected to for the reason that it calls for the construction of the claim of the Timken patent and not for a mechanicnl construction and operation.)

X A. 144. If the springs of the "Complainant's Timken Exhibit One Prime" were placed on the "Complainant's Priest Exhibit One" in the same way they are on the "Timken Exhibit," they would work substantially in the same manner.

X Q. 145. But you have not answered the question. Would the gear so changed, contain the invention shown, described, and particularly pointed out in the claim of the Timken patent?

(Same objection as last above stated.)

X A. 145. In my opinion it would.

X Q. 146. It makes no difference, then, so far as your said invention is concerned, whether the side bars are secured on the rear axle and head block, or upon cross-springs, as shown in "Complainant's Priest Exhibit One"?

(Same objection, as that is a question for the court and not for the witness.)

X A. 146. I think not. If the bars are attached to the end springs it adds additional elasticity to the vehicle, otherwise it operates precisely the same.

X Q. 147. How many different sizes do you make of your springs?

X A. 147. That I cannot say. The different spring manufacturers that I have licensed, make them of different lengths for
476 the different carriage-makers; and also, with more or less sweep in to suit the notions and ideas of their customers.

X Q. 148. But in all the springs made in late years, the top leaf extends beyond the heavy end of the spring, and in use the springs are secured with their heavy ends nearer the center of the body than they were when first manufactured and as shown in your patent, are they not? That is, they are substantially like, and attached in the same manner as the springs in "Complainant's Timken Exhibit One Prime"?

X A. 148. The top plate that extends beyond the heavy ends of the springs are put there for convenience of the carriage-maker; they support or hold the body and the cross-bar together, which otherwise a separate plate would have to be used for that purpose. That plate is not necessary to be on the springs, though it is put there for convenience. If that spring shown on "Timken's Exhibit One Prime" was put on a narrow vehicle same as shown on "Timken's Exhibit Three Prime," that plate would have to be cut off, as that brings the heavy ends of the springs very near the outer edge of the body. That plate shown on the springs where it runs beyond the heavy end, is put on the majority of springs, I think, that are now made. The width of the body and gear will regulate the place where the heavy part of the spring will have to be attached.

X Q. 149. Do you mean by that that the springs are all of the same length for the different sized vehicles, from the heavy ends of the springs to the light curved ends?

X A. 149. No, sir. As I have stated before, the different carriage-makers have the lengths of the springs made to suit themselves.

X Q. 150. As you never made, or had any of the Tilton springs made for you, why did you purchase the patent?

(Objected to as irrelevant.)

X A. 150. Mr. Stivers and Tilton who were the owners of
477 the patent at that time threatened me with suit, and I thought it was cheaper to buy it of them than to go into a patent suit.

X Q. 151. Did you negotiate with Messrs. Tilton & Stivers for that patent before or after the reissue was applied for or obtained?

X A. 151. After the reissue was obtained.

X Q. 152. Were you threatened with suit by Tilton and Stivers before the reissue was obtained or afterwards?

X A. 152. Afterwards.

X Q. 153. Then you didn't think that the Timken spring infringed upon the Tilton patent, but only purchased it because it was cheaper than defending a lawsuit? Is that right?

X A. 153. That is right.

X Q. 154. In your bill of complaint filed in this suit, you allege that your invention was not, at the time of your application for a patent, in public use or on sale with your consent or allowance, and you subscribed and swore to that statement, as appears from a certified copy of the complaint which I hand you, on the 30th day of January, 1886; did you believe that statement to be true at the time you made it and swore to it?

X A. 154. I want the notary to read to me that part of the bill referred to (which is done). I meant that my invention had not been in use more than two years prior to the application for the patent.

X Q. 155. Your counsel has repeated those words in your hearing before you answered the last question, has he not?

X A. 155. He did not.

X Q. 156. Did he not say in your hearing when the question was read to you "More than two years prior to the application for a patent," and was there not some discussion between counsel whether or not those words were in the bill of complaint as originally filed, before you answered X question 154?

478 X A. 156. There was some discussion between the counsel about "two years" and my counsel may have said "two years."

X Q. 157. In your affidavit to said bill of complaint you say as follows:

"That he (Henry Timken) has read the foregoing bill of complaint subscribed by him and knows the contents thereof;" was that statement true or believed to be true by you when you made it, subscribed and swore to it on the 30th day of January, 1886, as appears by certified copy of said bill before you?

(Objected to because the question does not say whether it is the original bill of complaint or the amended bill of complaint.)

X A. 157. I did read said bill and swore to it, but I must have overlooked or did not notice that it was not stated in there "in public use two years prior to the application" or otherwise I should not have sworn to it in that shape.

X Q. 158. What became, if you know, of the original exhibits and depositions offered and taken to be used in your suit against the Columbus Buggy Co., to which you have referred?

X A. 158. The depositions, I suppose, are in the court-house at Columbus, Ohio. Some of the exhibits that were used in that case are here now in this room, and what has become of all of them I cannot say.

X Q. 159. Were they not all sent to you after the suit was settled?

X A. 159. Some of the exhibits were, but none of the depositions. I have not seen them nor know anything about them; that is, I mean, the depositions.

X Q. 160. Did the Columbus Buggy Co. pay you any money in settlement of that suit, or did you pay the Columbus Buggy Co. any money?

(Objected to as irrelevant, incompetent, and as having nothing to do with the case.)

X A. 160. They did not pay me any money direct, but they
479 agreed to use my springs on which I received a royalty. I did not pay the Columbus Co. any money in settlement of that suit.

X Q. 161. You paid them for the exhibits, however, did you not?

X A. 161. I did.

X Q. 162. How much?

(Objected to as irrelevant.)

X A. 162. I think two hundred dollars; it might have been two hundred and fifty.

X Q. 163. You say, that since 1886, you have received one dollar royalty on your springs. Is that one dollar net, or do you give rebates for each set purchased by carriage-makers?

X A. 163. Since the first of January, 1886, I receive one dollar a set royalty and have paid no rebate, for the year 1886, to any one that I know of.

X Q. 164. You have paid then no rebates to manufacturers, users, dealers, or any one else, since January, 1886. Is that the way you wish to be understood?

X A. 164. I have paid no rebate to any one during the year 1886. For the year 1887, I have a contract with some of the carriage-makers, in which I agree to pay them a rebate of twenty-five cents on all my patent springs they may use during the year of 1887.

X Q. 165. Haven't you, or your licensees, sent circulars to the trade, making a general offer of 25 cents rebate upon all Timken springs used, payable by you on demand for the number of sets used?

X A. 165. I have not, that I know of, sent out any such circulars. My licensed spring-makers may have done so, but they have nothing to do with them, as the rebate was entirely between myself and the buyers of the springs.

X Q. 166. What royalty is paid to you by Woodhull, of Dayton, Ohio; Schuler, of Arcanum, Ohio, and the Cincinnati Spring Co., of Cincinnati, Ohio?

X A. 166. Woodhull used to pay one dollar and a half a set.
480 This year of 1887, he pays me fifty cents a set. Shuler, I believe, pays me a dollar. He does not sell many springs. The Cincinnati Spring Co., of Cincinnati, pay me a dollar royalty.

X Q. 167. Does either of the Defendants' Exhibits "Briegel's Wagon Springs," "Kierolf's Springs," "Kunkle Bros.' Springs" or "Matlock Springs" contain the invention shown and described in the Saladee patent, here in suit, and particularly referred to in the claim in said patent?

(Objected to as it calls for a construction of the claim of the Saladee patent.)

X A. 167. I think not.

Redirect examination.

By WM. M. ECCLES, Esq., complainant's counsel:

R. D. Q. 1. Are the springs in "Complainant's Timken Exhibit One Prime," factory-made springs or hand-made springs? If factory made, were they made in a spring press or form; and also state in the same answer whether the springs in "Complainant's Timken Exhibit Three Prime," arefactory-made springs or hand-made, and whether or not they were made in a press or form?

A. 1. They are factory-made springs in both exhibits named, and made on a form, or after a form, in the same way as most all other factory springs are made.

R. D. Q. 2. Were your springs made on a form at the factories where you first licensed them to make your spring?

A. 2. I think they were. I am pretty certain that they were.

R. D. Q. 3. Has the Columbus Buggy Co., since your suit against them was ended, and are they now using your springs upon which you then received a royalty, and upon which you now receive royalty, or upon which you receive royalty? In other words
481 are they still using your springs, and buying them from your regular licensed spring-makers, from whom you receive royalty on the springs?

A. 3. They have been and are now using my springs upon which I receive royalty, and they buy them from my regular licensed spring-makers.

R. D. Q. 4. State if "Complainant's Priest Exhibit One," was one of the exhibits introduced by the defendant in your suit against the Columbus Buggy Co., as "Priest Exhibit," while Priest was testifying?

A. 4. It was. That is, the exhibit that Mr. Priest testified to, that those springs were similar to a set of springs that he had made and put under a buggy. I think it was of the year of 1873, and tested the springs under that buggy. That he then found that they would not work, and he took them off from that buggy, and put other springs in their place. And furthermore, he said that that was the only set he ever made of that style.

(Latter part of answer objected to as incompetent, because it is attempting to rehearse record evidence from memory.)

Recross-examination.

By GEORGE J. MURRAY, Esq., attorney for defendants:

R. C. Q. 1. What rebate per set do you now, and have you since the settlement of the Columbus Buggy Company's suit, allowed and paid to the Columbus Buggy Company, for the Timken springs purchased from your licensees?

A. 1. For the year 1887, I pay them a rebate on all my springs they use during that time of twenty-five cents; before that I have not paid them any rebate.

482 Redirect examination.

By WM. M. ECCLES, Esq., attorney for complainant:

Q. 1. Look at "Defendants' Exhibit Briegel's Wagon Springs," and see whether or not it bears a stamp of Tomlinson & Company, Bridgeport, or Tomlinson Spring Co., Bridgeport.

A. 1. It does not, that I can see.

(Signed) HENRY TIMKEN.

Subscribed and sworn to before me, at the place, between the hours and on the day aforesaid.

[SEAL.] A. A. PAXSON,
Notary Public.

Testimony of George Baker.

GEORGE BAKER, being duly sworn, doth depose and say in answer to interrogatories proposed to him by WM. M. ECCLES, Esq., counsel for complainant, as follows, to wit:

Q. 1. What is your name, age, occupation and residence?

A. 1. My name is George Baker; I am 49 years of age; I live in Chicago, Illinois; my occupation is that of traveling salesman.

Q. 2. State if you ever had any conversation with William Blume, of Scranton, Pennsylvania, in relation to a cross-spring and in relation to the Timken spring, and if you had, state as near as you can what the conversation was, and what you saw there, and when the conversation occurred.

A. 2. In the month of June, 1879, as near as I can recollect, I called on Mr. Blume, at Scranton, Pennsylvania, for the purpose of selling him the Timken springs. He had some three buggies in his place at that time with a cross-spring on, similar to the Tim-
483 ken spring. In conversation with him, he told me that he had built three buggies with those springs; that he had made the springs in his shop. The spring that I saw there was similar, only it was straighter at the ends, almost straight. I told him I didn't think the spring would work the way he had it. He said he was just changing one for a doctor whom he had sold one of the buggies to; that the spring did not work; they would spring and twist the side bar. He was obliged to take them off and substitute something else—was intending to; but after looking at my model, which I had with me, he saw where the trouble was—that he had his spring made too straight. He gave me an order at that time for some springs. I forget whether it was more than one set or not, at that time; and said to me that he should make no more of those springs, but would buy his springs from Mr. Timken.

Q. 3. What appearance had those buggies which you saw there with a cross-spring on them, as to how long they had been finished?

A. 3. They appeared to be just about finished. The one for the doctor had been running but a few days. My judgment would be that the buggies had been finished but a very short time.

Q. 4. Can a person accustomed to carriage-work tell from the ap-

pearance of the paint and finish whether a vehicle has been recently finished, or whether it has been finished for a long time?

A. 4. Yes, he can.

Q. 5. Will you look at "Defendants' Exhibit Briegel's Wagon Springs," and tell me whether it was one of the springs that was on either one of those three buggies at the time that you saw them at Blume's shop, and, if it wasn't, point out the difference between Briegel's wagon springs and the springs you saw on the buggies at Blume's shop, in June, 1879?

A. 5. I would say that was not the spring. If he had had
484 that spring on, it would have worked. The difference between the Briegel wagon spring and the one I saw on Blume's buggies would be more such a spring as that (pointing to "Defendants' Exhibit Kunkel Bros.' Spring,") in the matter of being straighter at the small ends of the spring.

Q. 6. How did those springs which you saw on Blume's buggies compare as to shape with "Defendants' Kunkel Bros.' Exhibit," as to the small ends?

A. 6. As near as I can remember, the spring looked very much like this, Kunkle Bros.' spring, at the small ends, on account of the straightness.

Q. 7. Well, were they, or were they not, as straight at the small ends as "Defendants' Exhibit Kunkle Bros.' Springs"?

A. 7. Well, I should say as near as I could recollect now, that they were.

Q. 8. Did your model which you had, show a double sweep in the spring—that is the spring turning down from the cross-bar, and then turning up at its small end like the spring in "Defendants' Exhibit Briegle's Wagon Springs," so as to take up the spread of the spring as the body moves up and down between the side bars, without twisting or moving the side bars out and in?

A. 8. Yes, sir; it did.

Q. 9. Do you know whether or not at the time you visited Mr. Blume, spoken of, Mr. Timken was then using the brass bushings in the small ends of the springs w-ere they are attached to the shackle?

A. 9. I believe he was.

Q. 10. If the springs, "Defendants' Exhibit Briegle's Wagon Springs," had been on either one of those buggies in Blume's shop at the time you was there, state whether or not you would have noticed the brass bushings in the ends of the springs?

A. 10. Well, I might not have noticed them if the shackles had been on; possibly not. I probably wouldn't have noticed much about the bushings; if it had of been a spring like this "Ex-
485 hibit Defendants' Briegle's Wagon Springs," like its shape, I would have taken more pains to have looked it over, and would possibly have seen whether it was fitted up tight or loose.

Q. 11. State whether or not in your opinion the "Defendants' Exhibit Briegle's Wagon Springs" is made by hand or a factory-made spring?

(Objected to as it does not appear, so far, that the witness is qualified to testify as an expert in the matter inquired about.)

A. 11. I should think it was a factory spring.

Q. 12. Will you state whether or not the heavy ends of those cross-springs, which you saw in Blume's shop, ran clear to the side of the body, and if they did, state what makes you remember that fact?

A. 12. Well, I don't remember about that; that I won't be certain on.

Q. 13. Who did you meet there beside Blume; state whether or not, Mr. Daniel B. Ruple was there, and if so, state if you had any conversation with him, or in his presence, with Blume; and if you did, did said Ruple or Blume, in his presence, state that Ruple had made 300 sets of that spring?

A. 13. I met Mr. Ruple there, Mr. Blume introduced me to him; Mr. Ruple claimed that he had made, I think it was 300 sets of those springs—something to that effect—and some buggies, which were running, he said, in Hazelton.

Q. 14. Was Ruple working for Blume at that time?

A. 14. Yes, sir; he was.

(Signed) GEO. BAKER.

Sworn to and subscribed before me at the city of St. Louis and State of Missouri, this 28th day of September, 1887.

[SEAL.] A. A. PAXSON,
Notary Public.

Not being able to complete the taking of these depositions for the want of time, I adjourn the further taking of the same till tomorrow, the 29th Sept., 1887; then to be continued as aforesaid.

[SEAL.] A. A. PAXSON, *N. P.*

486 *Wm. S. Durie's Testimony.*

A witness called on behalf of the complainant herein, and residing in the city of St. Louis, in the State of Missouri, being duly cautioned and sworn to tell the whole truth, and being carefully examined, deposes and says, as follows:

(By consent of all parties hereto, R. J. Delano, a notary public, is permitted to swear the witness and take his testimony until the arrival of A. A. Paxson, notary public.)

Q. 1. State your name, residence, occupation and age.

(Testimony of this witness is objected to by defendants, for the reason that his name does not appear in the notice to take testimony.)

A. 1. My name is Wm. S. Durie; I reside at 4028 Fairfax avenue, St. Louis; am salesman at Jas. Cunningham, Son & Co.; my age is 54 years.

Q. 2. When did you first commence to work for Mr. Timken?

A. 2. Somewhere between October 15th and November 15th, 1876.

Q. 3. Did you keep any book for Mr. Timken while you was working for him?

A. 3. I kept a book like this, called a sales book, or blotter. (Complainant here hands the book referred to by the witness and asks him to state whether or not that book is kept in his handwriting; if not all of it, witness is requested to state what pages are in his handwriting and also to state what the book is.) I kept nearly all of this book in my handwriting; every page is in my handwriting; there may be an occasional single little charge that may be somebody else's. The book is what we call "the blotter."

487 Q. 4. Will you turn to page 29 of that book and read the entry of James Lupe, April 5, 1877, and let the notary copy it into your deposition?

A. 4. Yes, sir. "April 5, 1877, James Lupe to one fine surrey phaeton with pole and shafts complete, price, five hundred dollars ($500);" then a marginal mark "April 1."

The complainant's attorney here hands the witness a book appearing to be an order book, and asks the witness to state what the book is and in whose handwriting the page bearing the date, "St. Louis, November 27, 1876," is.

Witness answers: It is an order book and it is in my handwriting.

Q. 5. State whether or not said books were kept by you while you were in Mr. Timken's employ, and for work done by him?

A. 5. Yes, sir.

Complainant's attorney hands the page last referred to in order book to the notary and asks him to mark it, "Complainant's Durie's Exhibit Order Book No. 2," which is done, and requests the witness to read the page so marked to the notary and let him copy it into his deposition.

(The introduction of the above exhibit in evidence and this line of examination is objected to by defendants' attorney, because it is not in rebuttal of any testimony offered by defendants; and complainant's counsel is notified that a motion will be made to the court to strike this and all other testimony taken during this examination which is properly not in rebuttal of testimony taken by defendants, from the record).

Witness now reads:

"St. Louis, November twenty-seventh, eighteen hundred and seventy-six, James Lupe, orders surrey phaeton, No. 0, patent wheels, steel tire, steel axles, body to be two inches longer and two inches wider than the one now in the factory; four-bow extension-top, green cloth trimmings, plain colors (dark green), striped

488 black, oride mountings, pole and shafts, finished by the first of April, price, $500. (Marked across), finished and delivered April fifth, eighteen hundred and seventy-seven."

Q. 6. Complainant hands the notary the blotter, page 29, and re-

quests the notary to mark said page, under the entry read by the witness on said page, "Complainant's Durie's Exhibit No. 1," which is done, and asks the witness to state whether or not these two entries, in these two books, marked respectively, "Compalianant's Durie's Exhibit One," and "Complainant's Durie's Exhibit Two," refer to the same or different jobs?

A. 6. They refer to the same job.

Q. 7. Complainant's counsel asks the witness to state whether or not this job for Mr. Lupe, referred to in these two exhibits, had on the Timken spring, the same as shown in "Timken's Exhibit Two Prime (2′)," or different springs; and whether or not it is the same job spoken of in the testimonial of Jas. Lupe in said "Timken's Two Prime (2′)" in said testimonial of said Lupe?

(Objected to by defendants' counsel for the reason above stated and for the reason that it is leading and suggestive of the answer desired.)

A. 7. Yes, sir; it had on the same kind of a spring as that; the testimonial refers to that job.

Q. 8. Are you able to state from these books the date that this order was given, and when it was delivered? If so, state when the order was given and when the vehicle was delivered.

(Same objection.)

A. 8. Yes, sir; I can state from these books. The order was given November 27th, 1876, and it was delivered April 5th, 1877.

Q. 9. Please look in "Timken's Exhibit Two Prime," and also on page 36 of said blotter, and see whether you can find therein an account of Charles Aber; and state whether or not that charge refers to the same vehicle or to a different vehicle he received from
489 Mr. Timken about time, and state what kind of spring said vehicle had on.

(Same objection.)

A. 9. Well, in the book blotter here, it is simply charged to Aber; but it has reference to Charles Aber, and it was hung on Timken springs.

Q. 10. Please read that entry to the notary and let him copy it in your deposition.

A. 10. "May 10th, 1877, Aber to one fine shifting top buggy $300.00. By second hand jump-seat $200.00. Balance $100.00. New pair of side curtains $10.00." Then there are figures $110.00, showing the balance that he owed us.

Complainant's counsel hands the book to the notary and asks him to mark it on the margin opposite to said entry, "Durie's Exhibit No. 3," which is done.

(Same objection.)

Q. 11. Turn to page 42, of date May 22d, 1877, and state what kind of a buggy that entry refers to. I mean the charge of Charles Gage; and state what kind of a spring said vehicle had on.

A. 11. It has reference to what we call a square or piano box buggy, and was hung on Timken springs.

Q. 12. Refer now to Gage's testimonial in "Timken's Exhibit Two Prime (2′)," and state whether or not said testimonial refers to the said vehicle charged in the blotter, which you have just read, or to a different vehicle.

(Objection as before.)

A. 12. Yes, sir, it has reference to the same vehicle.

The complainant's counsel hands the notary the blotter referred to, and asks him to mark it "Durie's Exhibit No. 4" opposite the entry referred to, which is done.)

Q. 13. Please turn to page 59 of said blotter, and read the entry of F. A. Durgin, July 7th, 1877, to the notary and let him copy it in your deposition, which the witness does.

(Objection as before.)

A. 13. "July 7th, 1877, F. A. Durgin, to one fine side-bar Timken spring buggy, with shafts only."

490 (Complainant's counsel hands the notary the blotter and asks him to mark in the margin opposite said entry "Durie's Exhibit No 5," which was done.)

(Objection as before.)

Q. 14. State what kind of a spring that vehicle had on, and whether or not it is the same or a diffenent vehicle referred to in "Timken's Exhibit Two Prime (2′)" in the testimonal of F. A. Durgin therein.

(Objected to as before.)

A. 14. It had on a Timken spring; and that testimonial refers to that buggy.

(Objected to as before.)

Q. 15. Can you state from these entries when that buggy was put up and delivered for use?

(Objected to as before.)

A. 15. I can't state exactly when it was put up. It might have been on the floor for a month or two, but it was delivered for use July 7th, 1877.

Q. 16. Turn to page 70 of said blotter of August 3d, 1877, of account of C. M. Elleard, and state what that account refers to, and when it was sold to Mr. Elleard, and what kind of springs it had on.

(Objected to as before.)

A. 16. It refers to a trade of a surrey and buggy. It was traded August 3d, 1877, and had on Timken springs.

Q. 17. Please read that account to the notary and let him copy it into your deposition, which is done.

(Objected to as before.)

A. 17. Witness reads: "August the 3d, 1877. C. M. Elleard to one fine surrey wagon $350.00, shafts only. By old standing top buggy $165.00. Balance $185.00."

(Complainant's counsel hands said blotter to the notary and asks him to mark on the margin opposite said entry "Durie's Exhibit No. 6," which is done.)

Q. 18. Can you state from that entry when said buggy was delivered, and about when it was made?

(Objected to as before.)

A. 18. It was delivered August 3d, 1877. Couldn't say positively what time it was finished. Might be a month or more before the sale.

(Objected to as before.)

491 Q. 19. Please refer to page 74 of said blotter under date of August 11th, 1877, account of Arthur McElrath, and state what that refers to, and what kind of springs it had on when it was sold, and when it was made—as near as you can tell.

(Objected to, as before.)

A. 19. It was sold August 11th, 1877, and had on Timken springs; couldn't say exactly when it was made; probably a month before the sale or more. Some of them were sold pretty soon after they were done, and some not so soon.

Q. 20. Look at "Timken's Exhibit Two Prime (2)," and state what vehicle is referred to under Arthur McElrath's testimonial therein contained, or A. McElrath's, as appears in said testimonial.

(Objected to, as before.)

A. 20. It has reference to that vehicle just described.

(Complainant's counsel hands the notary said blotter page 74, and asks him to mark on the margin "Durie's Exhibit No. 7," opposite the entry referred to by the witness, which is done.)

Q. 21. Please refer to page 87 of said blotter under date of September 13th, 1877, and state what the entry of William Coleman refers to; what kind of springs it had on, and when the vehicle was delivered, and about how long it was made before it was delivered.

(Objected to, as before.)

A. 21. It refers to a trade of two second-hand buggies. The one we traded him had on Timken springs, and was sold September 13th, 1877. I couldn't state positively how long it was made before it was delivered; but it was probably used a good while, it being second hand when we sold it.

(Complainant's counsel hands the blotter to the notary and asks him to mark in the margin opposite the entry referred to on page 87, "Durie's Exhibit No. 8," which is done.)

(Objected to, as before.)

Q. 22. State in whose handwriting these entries are that you have read, and have had the notary copy, and marked as your
492 exhibit from the blotter and order book referred to. And please read to the notary the entry on page 87 of William Coleman, just referred to, and marked "Durie's Exhibit No. 8," and let the notary copy it in your deposition.

(Objected to, as before.)

A. 22. "Sept. 13th, 1877, William Coleman to second-hand Timken buggy, $150.00. By old buggy, $75.00. By cash (check), $66.25—$141.25. Balance, $8.75." Those charges are in my handwriting.

Q. 23. What did Mr. Lupe do with reference to testing the springs before giving his order referred to in your testimony?

(Objected to, as before.)

A. 23. We had a vehicle in the shop at the time I was taking his order, which I requested him to hitch his team to and give it a thorough test, in any way or shape he pleased, and break it if he could. He drove it out and tested it thoroughly, and was so pleased with it he came back and gave me an order for the vehicle described in my testimony above.

Taking of testimony adjourned until 2 o'clock p. m.

Q. 24. What kind of springs did that vehicle have on, which Lupe tested before he gave his order?

(Same objection.)

A. 24. A Timken spring.

Q. 25. How long had Mr. Timken been running his patent cross-spring on a vehicle before you came to work for him, if you know?

(Same objection.)

A. 25. I don't know exactly; but it was some time, I know. There was a buggy out that I knew of, in the hands of John Sellers; and at the time that I went with Timken it had the appearance of having been run seven or eight months.

Q. 26. Do you know when you negotiated with William Lucas, or introduced Mr. Timken to Mr. Lucas, to build Mr. Timken a factory on St. Charles street, and please look at "Complainant's Exhibit Wm. Lucas and H'y Timken's Agreement," and state
493 if you know anything about that, and what brought it about?

(Same objection.)

A. 26. Well, it was directly after I went with Mr. Timken; I

think about the 15th, as near as I can recollect. It was built principally on my account. His old shop was too small and in a bad location for the class of customers that I had. In regard to this agreement, I recognize it as having been made at that time; the 23d of November, 1876.

Q. 27. Fifteenth of what month, and what year?

(Same objection.)

A. 27. Fifteenth of November, 1876.

Q. 28. Look at this book, called the blotter, from which you have testified, and state the date of the first entry on the first page, and state whether or not you kept this book, and the order which you have referred to for Mr. Timken in his business?

(Same objection.)

A. 28. The date is December first, 1876. I kept these books for Mr. Timken in his business.

Complainant's counsel hands the notary a certified copy of the application of Joram Priest, filed December 23d, 1881, "for improvement in vehicle springs," for a patent to the Commissioner of Patents, and asks the notary to mark it "Complainant's Exhibit Priest's Application," (which is done), and offers the same in evidence.

(Objected to as irrelevant and immaterial.)

Defendants' counsel without waiving the objections to the testimony of the witness as above noted, but relying upon the same, proceeds to cross-examine him.

The complainant's counsel desires to state on the record, that when he gave the notice to the defendants' counsel herein, to take depositions, Mr. Durie was not in the city of St. Louis, but came home afterwards; and that on Monday, the 26th day of September, 1887, while taking the evidence of Mr. Henry Timken, he verbally notified the defendants' counsel that he would take the deposition of Mr. Durie after Mr. Timken got through; and that he said
494 he would introduce the blotter referred to in this deposition (in answer to Mr. Murray's question of Mr. Timken, to produce the blotter) when Mr. Durie testified, to which defendants' counsel responded that that was all right, let Mr. Durie bring it then, which was the reason for the complainant's counsel not serving defendants' counsel written notice that he would take the testimony of Mr. Durie at this sitting.

Defendants' counsel states that the objection that will be relied upon before the court is not insufficiency of the notice, but the character of the testimony, and the attempt of the complainant to make his case on rebuttal.

Cross-examination.

By GEORGE J. MURRAY, Esq., attorney for defendants:

X Q. 1. Who made the set of springs used upon Lupe's vehicle, and who ironed that vehicle?

X A. 1. I couldn't say positively as to who made the springs; my impression is that they were made by the "Spring Perch Company," of Bridgeport, Connecticut. It was ironed by a blacksmith named E. A. Jones.

X Q. 2. Where were the springs on the other vehicles you have testified about made, and who ironed those vehicles?

X A. 2. As I was not working there, at that time, I could not tell positively about that; my impression is that Jones made them, after patterns of Mr. Timken's drawings. It is also my impression that he ironed them; still I cannot say positively.

X Q. 3. What impresses you with the views you have just expressed, or how did you receive such impressions?

X A. 3. By Jones always working on that kind of work, and was working on it at the time I came there. He was the only blacksmith that Mr. Timken had at that time that was capable of
495 working up things of that kind. He always worked at anything new that was got up—any change.

X Q. 4. Was Jones working on what you call Timken springs at the time you went there?

X A. 4. Yes, sir, on Timken spring work; on the spring and work in connection with it. That is, he was experimenting to get the right heft of springs to carry the different weights.

X Q. 5. How do you know he was making them after drawings by Mr. Timken, if you were not there?

X Q. 5. I only speak of the time I was there. I can't say about the former ones, and I have also heard Jones say that he made them that way. He made some after I went there; some changes that I know of. As to the number of leaves, for instance, there was some little change in the ends, some ways.

X Q. 6. What change in the ends made by Jones after you went there?

X A. 6. Well, in the butt end of the spring, instead of running out square, they tapered them off, and in the head of the spring they put in brass tubings; that is all, I believe.

X Q. 7. When did Jones make these changes?

X A. 7. Shortly after I came to Mr. Timken.

X Q. 8. About how many sets of springs did Jones make from the time you went there until the spring of 1877?

X A. 8. Well, that I don't know exactly, but not many of them. They mostly all came from the spring factory after that.

X Q. 9. Name some jobs that had springs on that were made by Jones?

X A. 9. Of my own knowledge, Charles Aber's was one; also a two-seated concern which we called a "Warwick," and was used by Mr. Timken himself. I don't recollect of any other. There was one out though when I went there, used by Sellers, which Jones told me he made the springs of.

496 (Last part of answer objected to by complainant's counsel as hearsay.)

X Q. 10. How long was it after you went to work for Mr. Timken

that he received the first invoice of cross-springs from the Spring Perch Company, Bridgeport, Conn.

(Objected to by complainant's counsel, because it is misleading, and assumes that Mr. Timken received the first invoice of cross-springs after the witness went to work for him, which the witness has not stated as a fact yet.)

X A. 10. Well, as I never expected to be a witness, I never charged my mind with that; I don't know.

X Q. 11. What was the first job sold after you went to work for Mr. Timken having cross-springs on it, which were made by the Spring Perch Co.?

X A. 11. To the best of my recollection it was Lupe's job; that is, after I went there.

X Q. 12. By whom was the vehicle which was traded to Mr. Coleman used, before it was traded to Mr. Coleman?

X A. 12. I couldn't swear positively as to that; I don't recollect who we traded that in from. We made so many trades in those days that I couldn't keep track of them.

X Q. 13. How were you engaged before you went to work for Mr. Timken?

X A. 13. I was superintendent for Wesley Fallon from February, 1863, to the latter part of September, 1876.

X Q. 14. How long were you engaged with Mr. Timken?

X A. 14. Six years, I think; up to the time he quit the carriage business, anyway, and went into the Varney Carriage Company; I was with him up to that time.

X Q. 15. Did you keep the books for Mr. Timken while you were engaged with him or during the year 1877?

497 X A. 15. No, sir; none but the order book and the blotter. I made temporary charges in the blotter, and they were copied by the book-keeper.

X Q. 16. Who was book-keeper when you first went to work for Mr. Timken; and who was his book-keeper during the year 1877?

X A. 16. He principally kept his own books, and was assisted by his nephew.

X Q. 17. Do you remember what work Mr. Timken exhibited at the St. Louis fair in 1877?

X A. 17. No, not all of it. I know he had a buggy there—a Timken spring buggy—also a gear with a Timken spring on it.

X Q. 18. Was it regularly made for the fair, and regularly entered for exhibition only, or for exhibition and competition; and if for the latter, did this buggy or gear having Timken springs, receive any reward, and if it did, what reward?

X A. 18. In the first place it was made for the fair; the buggy was both for exhibition and competition. The gear with the Timken springs was entered under the head, "Best spring couplings." It took the premium; whether it was a silver or bronze medal, I am not certain which.

X Q. 19. Was that the first time, as far as you know, that the

Timken spring was entered at the St. Louis fair, either for exhibition or competition?

X A. 19. It is the first I recollect of.

X Q. 20. You say Mr. Jones usually experimented when anything new was gotten up by Mr. Timken; what other new things, besides these springs, do you remember of his experimenting on, shortly after you went to work for Mr. Timken?

(Objected to by complainant's counsel, because it assumes that the witness said that Mr. Jones experimented with other new things after he went there, consequently misleads the witness.)

498 X A. 20. Well, I said or meant to say, that he done the work of these experiments; I can't recall to my mind what he did experiment on afterwards, after I came there.

X Q. 21. Did you see the Timken model which was made in Mr. Timken's shop, to be filed with his application for a patent?

X A. 21. Yes, sir; I believe I did.

X Q. 22. When was that model made?

X A. 22. I could not tell you exactly; that is, I could not give the correct date.

X Q. 23. How do the shape of springs of that model compare with the Timken springs as they are made today; and how did it compare with the Timken springs first made and used by Mr. Timken on vehicles which you have spoken about in your direct testimony?

(Objected to as a certified copy of, or the original model, is the best evidence of what the model is.)

X A. 23. Just about the same; they were applied just the same as today; there might be a slight change in the shape of them.

X Q. 24. Did you have conversation with Mr. E. D. Olin, who is here present, about the twentieth or twenty-second of June last, in relation to the time when you first went to work for Mr. Timken, and in relation to the time when Mr. Timken first invented, or got up, what is now known as the Timken spring?

X A. 24. I had some conversation with him on that subject, some time during the summer; I don't know what time.

X Q. 25. Did you tell him in the conversation that you went to work for Mr. Timken in November, 1876, and that the first spring was made by Jones a month or so after you went there?

X A. 25. No, sir; I did not tell him that.

X Q. 26. Did you tell him substantially what you testified to here?

X A. 26. Yes, sir; as near as I can recollect without the books?

499 Redirect examination.

By WM. M. ECCLES, Esq., counsel for complainant:

Q. 1. I forgot to ask you in my direct examination, if you was willing to make these exhibits referred to in your testimony as part of your deposition; I now ask you if you are willing and do make them a part of your deposition?

A. 1. Yes, certainly.

Q. 2. You said in your cross-examination that Jones exp-rimented on the Timken spring; now do you mean to say that Jones made the experiments, or do you mean to say by that, he, Jones, worked on the experiments which Mr. Timken made on the springs?

(Objected to as leading and suggestive.)

A. 2. I mean to say that he, as a mechanic, executed Mr. Timken's instructions.

Q. 3. In cross-question one, you was asked who made the set of springs used upon Lupe's vehicle, and who ironed that vehicle, and your answer was, they were made by the Spring Perch Company of Bridgeport, Connecticut; it was ironed by a blacksmith named "E. A. Jones," and in cross-question two, you were asked "Where were the springs on the other vehicles you have testified about, made, and who ironed those vehicles," and your answer was, "I was not working there at that time; I could not tell positively about that; my impression is that Jones made them;" you don't mean to state by that, do you, that Jones made all the springs you testified about, except the Lupe spring, do you; if not, state what springs you mean to convey in your answer, that Jones made, after patterns of Mr. Timken's drawings.

(Objected to as leading, suggestive and obvious invitation to the witness to explain away his testimony.)

A. 3. I want to say, and think I did say, that they were manufactured by Spring Perch Company of Bridgeport, Connecti-
500 cut, and the job was ironed by E. A. Jones; and the springs made previous to the Lupe job, I am not positive about—except what I have heard from Mr. Timken and the hands.

Q. 4. Do you mean by the answers to those two cross-questions, that Jones made all the springs which you have testified about, except the Lupe springs?

(Same objection.)

A. 4. No, sir. I mean to say, as I said before, that I was not working there, long before that, and I don't know of my own knowledge, who made the springs, but I have been informed by hands that Jones shaped the first ones. I don't pretend to say all of the original springs, but there might have been some of them at the spring factories.

Q. 5. You have testified in your direct examination, that Chas. Aber, Chas. Gage, F. A. Durgin, C. M. Elleard, Arthur McElrath, and William Coleman, all bought vehicles in the year 1877, of Mr. Timken, with the Timken spring on. Now, do you mean to say by your answer to cross-questions one and two "that Jones made all" those springs except Lupe's, or do you mean to say that Jones made the springs before you came to work for Mr. Timken?

(Same objection.)

A. 5. I mean to say from and after Lupe's springs, I think all the

springs were made at the factory. In my cross-examination there, I had reference to the springs that were made previous to those. That is what I understood him to ask me.

(Signed) W. S. DURIE.

Subscribed and sworn to before me at the city of St. Louis, State of Missouri, this, the 29th day of September, 1887.

A. A. PAXSON,
Notary Public.

501 SEPT. —, 1887.

Deposition of JOSEPH HARRISON, a witness called on behalf of the complainant herein, and residing in the city of St. Louis, in the State of Missouri, being duly cautioned and sworn to tell the whole truth, and being carefully examined, deposes and says, as follows:

Q. 1. State your name, age, residence and occupation.

A. 1. My name is Joseph Harrison; my age is 49 years. I live in St. Louis, Mo. I am a blacksmith finisher—have been in St. Louis.

Q. 2. How long have you been a blacksmith finisher in St. Louis?

A. 2. Right after the war, I came here, sir.

Q. 3. How long did you work for Mr. Timken, the complainant in this case?

A. 3. I worked for him off and on until he gave up business.

Q. 4. About when was that that he gave up business?

A. 4. About two years ago in May, I left Broadway.

Q. 5. Where was Mr. Timken's shop where he quit business and you left him—his employ?

A. 5. On Broadway, between Tyler and La Baume.

Q. 6. Was you working at Mr. Timken's carriage factory when he was on Sixth street, near Morgan—between Morgan and Franklin avenue?

A. 6. Yes, sir.

Q. 7. How long had you worked for him before he moved his carriage shop from Sixth street to St. Charles street?

A. 7. Most all the time: part of the time I would make a change, but it was only a little while though.

Q. 8. Did you commence working for Mr. Timken directly after you came to St. Louis, if not, about how long after you came did you commence working for him?

502 A. 8. About three months.

Q. 9. Was you in the volunteer service of the United States during the war?

A. 9. Yes, sir.

Q. 10. In what capacity did you work at Mr. Timken's shop in 1875 and 1876; and state whether you know a blacksmith of the name of E. A. Jones, or Allen Jones, who was working for Mr. Timken at that time?

A. 10. As finisher; I knew Mr. Jones.

Q. 11. Do you remember anything about the first Timken cross-spring that Mr. Timken constructed, or put upon a vehicle? If so, who was the blacksmith that put it on?

(Objected to because it is calling for testimony-in-chief and not proper in rebuttal of any testimony offered by defendants.)

A. 11. Jones ironed it. I remember about such a cross-spring.

Q. 12. State what you know about it.

(Same objection.)

A. 12. It was a pair of side springs cut in two and crossed with the spring ends, taking shackles on the top of side bars, on the first one crossed. I helped to experiment with that buggy, if there is any more questions to be asked.

Q. 13. After these first springs which fastened with shackles on the top of the side bars were made, what was next done with the cross-springs?

A. 13. They were hung in shackles under the side bars.

Q. 14. Explain how these first ones were made at the ends, where they were attached to the top of the side bars.

A. 14. They were curved over on top, and took the shackles on top.

Q. 15. Did they pass under the side bars or over them before they took the shackles?

A. 15. Under the side bars, sir.

503 Q. 16. From what was the pair which were attached to shackles under side bar made?

A. 16. They were made out of a pair of Concord side springs.

Q. 17. How were they shaped; I mean these that were attached under the side bars, and made of the Concord side springs?

A. 17. They were shaped about as the springs are today, with a double sweep; I don't see much difference in them.

Adjourned to 9 o'clock, a. m., September 30, 1887.

Q. 18. What kind of a spring was on that vehicle from which was taken the springs and cut in two and crossed; were they fastened on top of the side bars? (Same objection as before.) That is, describe the way the springs on that vehicle were attached to the hind axle and front bolster if you know? (Same objection.) I *I* mean the buggy from off of which the side springs were taken and the first cross-springs were put on?

(Same objection and for the reason that the questions assume facts not testified to by witness).

A. 18. They were side springs, passing under and on top of b*loster* or head bar—I called it head block—passing under the hind axle, and on top of axle bed.

Q. 19. What do you mean by the axle bed?

A. 19. Wood on hind axle.

Q. 20. Do you remember anything about a road wagon with side springs which Mr. Timken had at the fair in the fall of 1875?

(Same objection, and for the further reason that it does not appear that Mr. Timken had a road wagon at the fair in the fall of 1875.)

A. 20. Yes, sir That is I don't remember the date. I remember of helping make the wagon.

Q. 21. Where was Mr. Timken's shop when you helped make that road wagon?

(Same objection.)

504 A. 21. On Sixth street, between Franklin avenue and Morgan street.

Q. 22. Describe the springs on that road wagon?

(Same objection.)

A. 22. They were side springs passing over front axle under bolster and fastened on top, and passed under the hind axle and fastened on top of axle bed.

Q. 23. How did the springs in this road wagon correspond with or differ from the side springs on the experiment wagon, or the buggy upon which the first cross-springs were placed before the cross-springs were put on?

(Same objection.)

A. 23. I could see very little difference, except the one was heavier, if I understand rightly the question, one set.

Q. 24. What was the experiment buggy which you have spoken of, called by Mr. Timken and the hands who knew of it? I mean the buggy that had the side springs on it, before the side-springs were taken off.

(Same objection.)

A. 24. It was our experimental buggy. We always looked on it as such.

Q. 25. State whether or not Mr. Timken called it his patent buggy.

(Same objection, and for the further reason that it is leading.)

A. 25. I can't remember now.

Q. 26. Did you work on this experimental buggy before the side springs were taken off and cross-springs put on?

(Same objection.)

A. 26. Yes, sir.

Q. 27. Do you recollect Mr. Timken having any conversation with Mr. Jones just before these first cross-springs were put on that experimental buggy, and if he did, state whether you remember any drawing with chalk or anything else?

(Same objection, and for the further reason that the question is suggestive.)

A. 27. I can't remember the drawings; but I remember him ordering Jones to cut and cross them.

505 Q. 28. Did Mr. Timken say anything in your hearing to Jones about how to bend the springs?

(Same objection.)

A. 28. Yes, sir; he showed him how to sweep the springs.

Q. 29. How long after the road wagon was built, spoken of by you, was it that Mr. Timken ordered Jones to put these cross-springs on, as spoken of in your last two answers; and state whether this conversation occurred before or after the fair?

(Same objection.)

A. 29. It was shortly after the fair, sir. It might have been a couple or three months after it was built. I could not say positive.

Q. 30. How long after the first cross-springs that were fastened on top of the side bar, on that experiment buggy, was it that the cross-springs that fastened under the side bar were put on to it?

(Same objection.)

A. 30. Immediately afterwards, sir.

Q. 31. While you were working on this experiment buggy, who paid you, Jones or Timken? And also state, if you know, whether Jones worked piece-work or day-work, while he was on that experiment buggy.

(Same objection.)

A. 31. Mr. Timken paid me. Jones worked day-work on the experiment buggy; that is, to the best of my knowledge; I don't say that positive.

Q. 32. Well, when you worked as Jones' helper, and Jones worked piece-work, he paid you, didn't he, and not Timken?

(Objected to, same as above, and as leading; and for the further reason that it don't appear that Jones did work piece-work.)

A. 32. Always.

Q. 33. Do you know where Mr. Timken got his cross-springs which he put on buggies after that first and second set were put on the experiment buggy by Jones?

(Same objection.)

A. 33. No; I can't remember. He made some springs, but I can't remember.

506 Q. 34. Do you remember whether he got them from a factory, or whether they were made in the shop by Jones; that is, these cross-springs which he put on vehicles after Jones had made those first two sets put on the experiment buggy?

(Same objection; and for the further reason that it is leading, suggestive, and has already been answered.)

A. 34. I think Jones might have made two, three or four sets; the first ones after the two sets.

(Question reread by notary, at request of complainant's counsel.)

—. Well, I think there were a few sets made in the shop. I don't remember about them coming from the factory.

Q. 35. Do you remember when Mr. Timken began to get his cross-springs from the factory?

(Same objection.)

A. 35. I think those Lupe springs were the first springs that I remember of from the factory.

Q. 36. Do you remember whether you worked on the Lupe buggy or not?

(Same objection.)

A. 36. I worked on the "Warwick" of Lupe's.

Q. 37. What kind of springs did the Warwick of Lupe's have on, on which you worked?

(Same objection.)

A. 37. Cross-springs, sir; Timken springs.

Q. 38. State whether or not this Lupe's Warwick is the same Lupe job spoken of above by you, which you said had the factory springs on it, or a different job for Lupe.

A. 38. It was the same job. I only worked on one set. I think they were factory springs.

Q. 39. Where was Mr. Timken's shop when you first commenced to work on this Lupe job?

(Same objection.)

A. 39. On Sixth street, sir.

Complainant's counsel formally offers in evidence the assignment from Rufus M. Stivers and Joseph Tilton to Henry Timken of reissued patent, No. 9542, dated 25th day of January, 1881; and
507 asks the notary to mark it "Complainant's Exhibit Stivers and Tilton Assignment to Henry Timken" (which is done); and formally offers assignments, which have already been introduced from Cyrus W. Saladee to Geo. M. Peters, Clinton D. Firestone and Oscar G. Peters, of patent on road wagon, No. 239,850, dated April 5th, 1881; said assignment being dated April 22d, 1882, and recorded May 6th, 1882. Also assignment of the same patent from Geo. M. Peters, Clinton D. Firestone and Oscar G. Peters to Henry Timken, dated December 8th, 1884, and recorded December 18th, 1884. Also a certified copy of the original Tilton patent, No. 157,430, dated December 1st, 1874, and asks the notary to mark the same "Complainant's Exhibit Original Tilton Patent" (which is done).

Cross-examination.

By Geo. J. MURRAY, Esq., counsel for defendants:

X Q. 1. What kind of spring wagon was that experimental buggy, before the side springs which turned underneath the head block

and hind axle, and were attached on top of the head block and axle bed, were put upon it?

X A. 1. I could not state.

X Q. 2. Whose invention were those side springs, if you know?

X A. 2. Mr. Timken.

X Q. 3. How long after the first cross-springs were put upon that experimental buggy was it that you first worked upon the Lupe job?

X A. 3. I could not say.

X Q. 4. About how long; give us your best recollection?

X A. 4. Well, it was in the forepart of the winter when we commenced on the Lupe job.

508 X Q. 5. How long before that were the first cross-springs put on the experimental buggy?

X A. 5. Three or four months, it might have been.

X Q. 6. It might have been only one month, might it not?

X A. 6. No, sir; months after.

X Q. 7. Do you think it was as much as four months afterwards?

X A. 7. I could not state positively.

X Q. 8. Might it have been six months afterwards?

X A. 8. No, sir.

X Q. 9. What became of that experimental buggy after the cross-springs were put on it?

X A. 9. I believe Mr. Timken used it.

X Q. 10. Did you ever hear Jones claim that he was the inventor of those cross-springs?

X A. 10. I never did, sir; and I was with him for years.

X Q. 11. Have you been called upon to testify in any suit on the Timken springs before this time?

X A. 11. Never, sir.

Complainant's counsel now offers an affidavit of Joram Priest, and exhibits attached thereto, and asks the notary to mark it "Complainant's Exhibit Priest's Affidavit" (which is done).

(Signed) JOSEPH HARRISON.

Subscribed and sworn to before me at the city of St. Louis, State of Missouri, this 30th day of September, 1887.

A. A. PAXSON,
Notary Public.

509 The Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co.
} In Equity. No. 3853.

The respondents in the above cause will take notice that complainant will examine Henry Timken, Joseph Harrison of St. Louis,

and George Baker of Chicago, and perhaps others under the 67th rule in equity as amended, before A. A. Paxson, notary public, at the office of Wm. M. Eccles, corner Broadway and Olive street, St. Louis, Mo., beginning at 10 o'clock of Friday, September 23, 1887, and continuing from day to day until completed.

WM. HUBBELL FISHER,
Per O. M. HILL,
Of Counsel for Complainant.

Received copy of the above the — day of September, A. D. 1887.

GEO. J. MURRAY,
Solicitor and Counsel for Defendants.

510 In the Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN AND EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity. No. 3853.

STATE OF MISSOURI, *City of St. Louis.* } *ss:*

I hereby certify that on the days of September 23, 24, 26, 27, 28, 29 and 30, A. D. 1887, before me Alford A. Paxson, a notary public, in and for the city of St. Louis, in the State of Missouri, at the office of William M. Eccles, corner Broadway and Olive street, in the city of St. Louis, State of Missouri, personally appeared pursuant to the notice hereto annexed, between the hours of 10 o'clock in the forenoon and 5 o'clock in the afternoon, the witnesses named in said notice, and Wm. Durie, and Wm. M. Eccles, Esq., appeared as counsel for complainant, and George J. Murray, Esq., appeared as counsel for the respondents, and the said witnesses being by me first duly cautioned and sworn to testify the whole truth, and being carefully examined, deposed and said as appears by their depositions hereunto annexed.

And I further certify, that the said depositions were then and there reduced to writing by me, and were after they had been reduced to writing, subscribed by the respective witnesses, and
511 the same has been retained by me for the purpose of sealing up and directing the same to the clerk of the court as required by law.

And I further certify, that I am not of counsel or attorney to either of the parties, nor am I interested in the event of the cause.

And I further certify that the fee for taking said deposition, $125, has been paid to me by the complainant, and the same is just and reasonable.

In testimony whereof, I have hereunto set my hand and official

seal, at the city of St. Louis, in the State of Missouri, this 30th day of September, 1887.

[L. S.] A. A. PAXSON,
Notary Public.

All the above objections made by the defendants' counsel to the above evidence for the "reason that it was not in rebuttal;" and the motion to strike the same from the files for the same reason, were overruled by the court, on the — day of October, 1887.

512 And afterwards, to wit. on the 8th day of Oct., A. D. 1887, an entry was made upon the journal of said court clothed in the words and figures following, to wit:

X, p. 409.

The def'ts' objections to the complainant's evidence and the defendants' motion appearing in said depositions of the complainants to strike out the evidence because it is not rebuttal evidence being heard by the court, it is ordered by the court that the same be, and they are hereby, all overruled.

513 And afterwards, to wit, on the 21st day of November, A. D. 1887, the following stipulation was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Stipulation.

United States Circuit Court, Southerj District of Ohio, Western Division.

HENRY TIMKINS
vs.
T. D. OLIN *et al.* } In Equity. No. 3853.

It is hereby stipulated and agreed by and between the parties to this suit that Henry Timkin, above named, if called would testify as follows, to wit, that the bill of date Feb. 6th, 1877, against Henry Timkin and in favor of the Spring Perch Company of Bridgeport, Conn.; that the bill of June 7th, 1877, against said Timkin and in favor of said Spring Perch Company, and the bill dated Sept. 23, 1876, against said Timkin and in favor of the Spring Perch Co., which bills are hereto attached, are all original bills sent by the Spring Perch Company to said Henry Timkin for springs and shackles made by said company for said Henry Timken before their respective dates, and that the word "pat." in said bills means patterns, after which the springs charged opposite said word or its ditto were made, and that the said patterns were sent by said Henry Timkin to the said Spring Perch Company to make the

springs after, and that the said patterns and springs made after said patterns and charged in said bills were the same in form and shape as the present Timkin spring, and that the said bills were
514 found after he gave his testimony in St. Louis, Mo., in this suit, and that the said bills may be admitted and used as evidence with the same force and effect as though they had been introduced in evidence regularly, and that this stipulation may be read at the hearing of this suit with the same force and effect as if the evidence of said Henry Timkin to the same effect were regularly taken in this suit, subject to all proper exceptions.

ECCLES & FISHER,
Solicitors for Complainant.

GEO. J. MURRAY,
Sol. for Defendants.

Cincinnati, Ohio, October 11, 1887.

515 *Bills Annexed.*

BRIDGEPORT, CONN., *Sept.* 23, 1876.

Mr. Henry Timken, St. Louis, Mo., bought of Spring Perch Co., manufacturers of first-quality springs and axles, ivory, rubber, gold, and silver plated coach trimmings, brass castings, curtain rollers, etc.

Terms: If not paid when due, subject to a draft, (at sight), with exchange on New York.

Plates.	Width.	Thickness.	Length.	Open.	No.							
4	1¼	3 & 4	36	8½	5536	5 pair	E. M.	Eng.	Wt.	204		
4	"	4	35	8½	5537	6 "	"	"	"	190½		
4	1⅜	3 & 4	36	8½	5538	2 "	"	"	"	73½	17c.	
3	1¼	"	34	8½	5539	2 "	"	"	"	50=518	88	06
3	"		28		5540	3 "	Circular			6.50	19	50
3	"		25		5541	1 "	"				6	50
3	"		29½	2	5542	3 "	Half			3.75	11	25
3	"		26½	2	5543	2 "	"				3	75
						Royalty on 4 pair circulars					40	00
5	1⅜		Pat.		5581	1 pair half					6	00
4	"		"		5582	1 "	"				5	00
										Boxing 1	50—181	56

1 box via Mer. Dispatch.

"Spring Perch Co., bill September 23d, 1876."

CURTIS THOMPSON, *N. P.*

516 BRIDGEPORT, CONN., *Feb. 6th*, 1877.

Mr. Henry Timken bought of Spring Perch Co., manufacturers of first-quality springs and axles, ivory, rubber, gold, and silver plated coach trimmings, brass castings, curtain rollers, etc.

Terms, 4 mos. or 5 per cent. cash. If not paid when due, subject to a draft, (at sight), with exchange on New York.

Plates.	Width.	Thickness.	Length.	Open.	No.				
5	1½	2 & 3		Pat.	7219	2	pair	half	
6	"	"		"	7220	1	"	"	
5	"	"	½ in. shorter than Pat.		7221	1	"	"	
4	1⅝	"		Pat.	7222	2	"	"	
4	1⅝	"	½ in. shorter than Pat.		7223	1	"	"	M 2 30–26c. 59 80
5	1⅝	"	½ in. shorter than P.		7224	3	"	"	
3	"	"	½ in. shorter than Pat.		7225	2	"	"	

6 sets Brewster shackles
bolts, tubes & washers, 2 12 00 71 80
Settled by note, payable
one month from May 15, 1877.
Spring Perch Co.,
1 box U. Star line. W. Burnham,
Ag't.

"Complainant's Spring Perch bill dated February 6th, 1877."

CURTIS THOMPSON, *N. P.*

517 BRIDGEPORT, CONN., *June 7*, 1877.

Mr. Henry Timken bought of Spring Perch Co., manufacturers of first-quality springs and axles, ivory, rubber, gold, and silver plated coach trimmings, brass castings, curtain rollers, etc.

Terms: If not paid when due, subject to draft (at sight), with exchange on New York.

Plates.	Width.	Thickness.	Length.	Open.	No.				
4	1⅝	2 & 3		Pat.	9807	3	pair	half wi-th	
3	1¼	3 & 4		"	9808	3	"	" Brewster	69 lbs. 26c. 17 94
3	1⅝	2 & 3		"	9809	3	"	" Shackles	
3	1⅝	3 & 4		"	9810	3	"	"	

6 set- W shackles 1 50 9 00
Boxing 25 27 19

"Spring Perch Co.'s bill June 7th, 1877."

CURTIS THOMPSON, *N. P.*

518 And afterwards, to wit, on the 18th day of January, A. D. 1888, the following request to withdraw stipulation, &c., was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Circuit Court of the United States for the Southern District of Ohio, Western Division.

TIMKIN *vs.* OLIN *et al.* } In Equity. No. 3853.

Hon. circuit court of the U. S. for the southern district of Ohio:

Your petitioner, the complainant in the above-named case, requests that he be permitted to take from files of this court the stipulation executed Oct. 11, 1887, and filed Nov. 21, 1887, in the above-named suit, together with the following exhibits attached to the said stipulation, namely, the bills of the Spring Perch Co. against Henry Timken respectively dated Sept. 23, 1876; Feb. 6, 1877; June 7, 1877, Bridgeport, Conn., and use the same in the examination of witnesses on behalf of said complainant in this case.

Very respectfully, ECCLES & FISHER,
Solicitors for Complainants.

CINCINNATI, O., *Jan.* 18, 1888.

The above-named request is hereby granted, and the complainant is authorized to take said stipulation and exhibits from the files for the aforementioned purpose. After the clerk has taken certified copies of the same said certified copies to be retained by the clerk.

HOWELL E. JACKSON,
Circuit Judge.

519 And afterwards, to wit, on the 12th day of January, A. D. 1888, an entry was made upon the journal of said court clothed in the words and figures following, to wit:

X, p. 475.

It is hereby ordered that the complainants have 20 days from & after January 12, 1888, in which to take further rebuttal testimony, at the end of which time the case is set for hearing.

And afterwards, to wit, on the 26 day of January, A. D. 1888, the following depositions on behalf of plaintiff *was* filed in the clerk's office of said court, clothed in words and figures following, to wit:

520 In the Circuit Court of the United States for the Southern District of Ohio, Western Division. No. 3853. In Equity.

HENRY TIMKEN, Com., *vs.* THOS. D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Co., Defendants. } In Equity. No. 3853.

STATE OF CONNECTICUT, *County of Fairfield,* } *ss:*

EDWARD STERLING, a witness called on behalf of the plaintiff herein and residing in the city of Bridgeport, more than one hun-

dred miles from the place of trial of this cause, being duly cautioned and sworn to tell the whole truth, and being carefully examined, deposes and says as follows:

Q. 1. Please state your name, age, residence and business.

Ans. Edward Sterling; fifty-six years old; of Bridgeport, Connecticut; president of the Elastic Webb Company, and of the Spring Perch Co.

Q. 2. What was your business in 1876 and 1877?

Ans. President of the Spring Perch Company at that time.

Q. 3. How long have you been connected with the Spring Perch Co.?

Ans. Since 1854.

521 Q. 4. Are you familiar with what is known as the "Timken spring"?

Ans. Only in a general way.

Q. 5. State whether or not the Spring Perch Company ever made any of those springs for Mr. Henry Timken, of St. Louis, and if so, when it made the first one.

Ans. Yes; the first was made in September, 1876, commencing on them September 20th, 1876.

Q. 6. Will you look at book, called Order Book, on page 500, under entry September 20th, 1876, and read the order therein entered, and let the notary copy it into your deposition, and state whose account it is?

Ans. Witness reads from book, "September 20th, 1876, two pair of springs, made like pattern, September 18th, 1876," of which rough sketch was entered at the time, as appears on said book; also in said order before the sketch appear the words, "Brewster sheckles;" on said book it is Henry Timken's account.

Q. 7. Who made that entry, and how did it come to be made, and what was it taken from?

Ans. It was entered by Edward Sterling, president of the company as ordered by Henry Timken, and taken both from the order and the pattern accompanying it.

Q. 8. Who made the sketch and what was the sketch intended for?

Ans. The sketch was made by the said Edward Sterling and intended as a rough description of the pattern.

Q. 9. Was the sketch in the book made by you intended for a sketch to make the springs after, or to designate the general kind of springs which were to be made?

Ans. Merely to designate the general idea.

522 Q. 10. What, in fact, was this spring made after, and what do the words "Pattern, September 18th, 1876," refer to?

Ans. This spring was made after pattern, dated September 18th, 1876, received from Henry Timken, and the words referred to the pattern we made the springs after.

Q. 11. The complainant offers in evidence the entry on page 500 of said order book, of date September 20th, 1876, and asks the witness if he is willing to make it a part of his deposition.

Ans. Yes.

Q. 12. What is his order book just referred to?

Ans. The entry of the original orders as received from the customers by the Spring Perch Company, that is it is the order book of the Spring Perch Company from 1874 to 1878 inclusive.

Q. 13. The complainant's counsel ask the notary to mark in the margin opposite said entry the words "Complainant's Timken Order, September 20th, 1876," which is done.

Q. 14. Complainant's counsel hands the witness a bill from the Spring Perch Company against Henry Timken, dated September 23rd, 1876, and asks the witness to state what it is and whose handwriting it is and what the bill is for.

Ans. The bill is September 23rd, 1876, for springs sent on that date, including two pair made after pattern, September 18th, 1876.

Q. 15. You refer in your last answer to the pattern entered in the Order Book, page 500, just testified about, do you not?

Ans. Yes.

523 Q. 16. Complainant offers bill, just shown the witness in evidence and ask the notary to mark it "Spring Perch Company Bill, September 23rd, 1876," which is done.

Q. 17. Complainant's counsel shows the witness a bill dated February 6th, 1877, of the Spring Perch Company, against Henry Timken, and asks him to state what the bill is, and what kind of a spring the first entry therein is for.

Ans. The bill is for springs sent on that date made like pattern dated January 22nd, 1877.

Q. 18 Counsel asks the notary to mark the bill, "complainant's Spring Perch bill, dated February 6th, 1877," which is done.

The counsel for defendants objects to the foregoing testimony as not properly in rebuttal.

Cross-examination.

By G. J. MURRAY, counsel for defendants:

X Q. 1. What has become of the original orders and patterns, if you know from which the entries referred to by you were made?

Ans. I do not know, as I give no personal attention to the details of the business at this time.

X Q. 2. Can you state the lengths of the springs made after pattern dated September 18th, 1876?

Ans. I cannot state it; I do not know the length.

524 X Q. 3. Can you state the weight or price per pound at which the springs were sold which were sent September 23rd, 1876?

Ans. The weight was not recorded as they were sold by the pair and not by the pound.

X Q. 4. What is the difference in shape, if you recollect, between the springs made after the pattern dated September 18th, 1876, and those made after the pattern dated January 22, 1877?

Ans. I do not remember as the order book does not show the difference, but the springs were made from two different patterns.

X Q. 5. The entry, one pair half springs, means two pieces, or two complete sections of springs, does it not?

Ans. It means two pieces; I do not know what is meant by the latter part of the question.

Redirect examination.

By WILLIAM M. ECCLES, counsel for complainant:

Q. 1. Please look at the entry directly under and apparently making a part of the entry September 20th, 1876, and read it, and let the notary copy it in your deposition and state what it is, and whether it is a part of the order of September 20th, 1876, or not?

Ans. The entry is "One pair half, pattern Sept. 18th, 1876, four p. (which means plate), 1¾ wide" with ditto under the sketch and is a part of the order of September 20th, 1876.

Q. 2. How did you come to make sketches in this order book of the spring made for Mr. Timken when you did not make
525 sketches of any other springs made for him of a different kind; was it because it was a new kind of spring, or was it for some other reason?

Question objected to as leading and suggestive, and for the reason it does not relate to matter referred to in cross-examination.

Ans. It was because it was a new pattern spring.

EDWARD STERLING.

And FREDERICK B. HAWLEY, being called as a witness on behalf of the plaintiff herein, and residing in the city of Bridgeport, more than one hundred miles from the place where this cause is to be tried, being duly cautioned and sworn to tell the whole truth, and being carefully examined, deposes and says as follows:

Q. 1. Please state your name, age, residence and business.

Ans. Frederick B. Hawley; 49 years old, of Bridgeport, Conn., and treasurer of the Spring Perch Co.

Q. 2. How long have you been in the spring business in Bridgeport, Conn.?

Ans. 30 years and over.

Q. 3. What was your business in 1876 and 1877?

Ans. Treasurer of the said company.

Q. 4. Are you now familiar with what is known as the Timken buggy spring?

526 Ans. I am.

Q. 5. State, if you know, when the Spring Perch Company of Bridgeport, made the first Timken spring, and how it come to make it, and who it made it for?

Ans. The first set of springs was made by the Spring Perch Company in September, 1876; they were made because ordered by Henry Timken, and charged to his account.

Q. 6. After what was it made?

Ans. From a letter and pattern furnished by Henry Timken.

Q. 7. State whether or not the Spring Perch Company are now

manufacturing springs after his patent No. 197,689, and paying a royalty to him therefor; if so, how long has it been manufacturing such springs under a license from Mr. Timken?

Ans. We are manufacturing springs after his patent, and paying him a royalty therefor, I cannot tell how long, exactly, but for several years; I cannot swear to the No. of the patent.

Q. 8. State whether or not, Mr. Hawley, the springs which the Spring Perch Company made for Mr. Timken, after his pattern sent in September, 1876, was, or was not, substantially the same as the springs which the Spring Perch Company are now manufacturing under said license?

Objected to, as leading.

Ans. They are substantially or practically the same.

Q. 9. State whether you saw the pattern sent to the Spring Perch Company, or received by it about the 20th of September, 1876, and state whether you recollect seeing the springs that were made
527 after that pattern, and billed to Henry Timken, September 23rd, 1876, and in the same answer also state whether you had anything to do with making out the bill of September 23rd, 1876, or in estimating the charges therein for the last two items?

Ans. I know what the springs were; I can't say that I saw the original pattern of the springs; I may have seen this pattern or may not; I probably estimated the charges; that is my common practice to make the estimates for anything new.

Q. 10. State whether or not this first spring came within the general term stated by you as "anything new" in the spring line, and also state how the pen sketch in order of September 20th, 1876, of the order book of the Spring Perch Company on page 500 came to be made.

Ans. It did come under the head of something new; the pen sketch was made to give a general idea of the shape to enable us to find the pattern when we should need it; the pattern was dated and the sketch was made to indicate the style also as something of a guide to us in the office in making charges, also to enable us to find the pattern.

Q. 11. Do you know what has become of this original pattern sent by Mr. Timken in September, 1876?

Ans. I don't know.

Q. 12. State whether you ordered search to be made for those old patterns of Mr. Timken's, or made search yourself for them.

Ans. We have made search and the originals can't be found.

Q. 13. Please look again at bill September 23rd, 1876, marked "Spring Perch Company, bill September 23, 1876," and state
528 in whose handwriting, if you know, it is, and in what capacity the person making the bill, acted at the time.

Ans. It is in the handwriting of E. W. Marsh; he was then secretary of the company.

Q. 14. Where is he now, and when will he be back to Bridgeport, if you know?

Ans. I don't know where he is; he is temporarily away from home.

Q. 15. What is your best information, if you have any, when he will be back?

Ans. I am informed that he will be back on the 27th inst.

Q. 16. How many springs or parts of springs were made from that first order of September 20th, 1876, and how many are charged in the last two items of bills of September 23rd, 1876?

Ans. Two pairs, that is, one set was made under that order, and the same number charged on bill of September 23rd, 1876.

Q. 17. Complainant's counsel hands the witness an envelope, and asks him to state how the springs which the Spring Perch Company are manufacturing now under their license with Mr. Timken, correspond or differ from the springs shown by the cut on said envelope?

Ans. I should think that it corresponded with this in the general idea of the springs, perhaps not exactly in shape; that is meant to give an idea of the springs, and it does give a good idea of the springs.

Q. 18. State whether or not Mr. Timken has sent since his first order any number of patterns to the Spring Perch Company to manufacture his springs from, and whether or not he has
529 not sent to the Spring Perch Company since the date of his patent any number of patterns to manufacture his springs from, and whether or not those patterns were all substantially the same or radically different?

Objected to as leading and suggestive.

Ans. He has sent us a number of different patents varying slightly in shape, practically the same; I mean by that that any of them will work.

Q. 19. Look at bill February 6th, 1877, and state what it is and by whom it was sent.

Ans. It is a bill of twelve pairs, that is six sets of Timken's springs, and sent by E. W. Marsh, secretary of the Spring Perch Company, order for same entered by E. Sterling, president, January 26th, 1877, springs made from pattern furnished by Timken; pattern dated January 22nd, 1877.

Q. 20. Where does the order corresponding with that bill appear in the order book?

Ans. Order book, page 500, under date of January 26th, 1877.

Q. 21. Look at bill June 7th, 1877, and state what it is and who rendered the bill.

Ans. The bill of June 7th, 1877, is for six set of Timken springs. The bill is made out in part by E. W. Marsh, and in part by F. B. Hawley; prices and figures are in F. B. Hawley's handwriting.

Q. 22. Complainant's counsel asks the notary to mark said bill "Spring Perch Company's bill, June 7th, 1877," which is done.

Q. 23. Will you state on what page the order appears for
530 the work charged for in the bill of June 7th, 1877, and read the same to the notary and let him copy the same in your deposition?

Ans. Page 719 of order book, "Six sets of springs, after pattern of May 5th, 1887, with "Brewster shackles," there is also a sketch on order book giving an idea of the pattern.

Q. 24. Complainant's counsel asks the notary to mark in the margin of the page 719 the words, "complainant's order, May 29th, 1877," which is done.

Q. 25. What is meant by pairs, and how many pairs of these springs make a set?

Ans. One pair means two pieces; one set means four pieces, or springs, or two pairs.

Q. 26. Complainant's counsel asks the notary to mark the envelope upon which appears the cut testified about by the witness in this deposition, "Hawley's envelope," which is done.

The foregoing deposition is objected to as not properly in rebuttal.

Cross-examination.

By J. G. MURRAY, counsel for the defendants:

X Q. 1. Were the springs that you manufactured, or did manufacture, under the Timken license, fitted up as shown in the cut on "Hawley's envelope," by your company, and if not, what parts did your company manufacture?

531 Ans. They were essentially the same, as far as the springs are concerned; they went with a different shackle from this cut, and there was some variation on the end which attaches to the body outside of the bolt-holes, and perhaps some other slight variations in height, but not essential variations any way.

X Q. 2. Were the sections of the springs sold loosely by your company, or fitted on spring bars, as shown in that cut?

Ans. They were sold loosely, attached to shackles, but not to spring bars, and that is the custom today so far as we are concerned.

Redirect examination.

By WM. M. ECCLES, counsel for complainant:

R. Q. 1. How are they sold; to be attached to spring bars and side bars?

Ans. We sell them by the sett, so much a sett; they can attach them as they please.

R. Q. 2. Doesn't the Spring Perch Company have an advertisement, in the carriage monthlies, showing the Timken spring manufactured by them, is attached to spring bars upon which the body is to rest, and to side bars?

Ans. I think not, sir; I don't know of such an advertisement we have.

R. Q. 3. Do you or do you not know that the Timken springs, manufactured by the Spring Perch Company, are almost universally used, and bought to be used, attached to side bars and to spring bars?

532 Ans. I know they are so used; attached to side bars; what are called side-bar wagons.

R. Q. 4. Do you or do you not know that they are generally so used by those who purchase them of you?

Ans. I know they are generally so used.

R. Q. 5. Do you, or do you not know, that the Timken spring, attached to spring bars and to side bars, has a reputation as a buggy spring, and are in great demand, and have been for a number of years?

Ans. They have been in great demand, especially in the Western country.

Recross.

By G. J. MURRAY, counsel for defendants:

R. X Q. 1. Are the Timken springs made by your company, now heavier or lighter than they were made when your company first began making them?

Ans. My impression is that the buggy springs are lighter, and the four passenger-wagon springs, heavier.

R. X Q. 2. What is the weight of each kind as now made by your company, or about the average weight of each?

Ans. I can't tell you the average weight now, for this reason, that they are not sold by the pound but by the sett, without reference to weight; further, our company has made but few of them for the last few years and I have not noticed the weight.

R. X Q. 3. I notice in the two bills February 6th and June
533 7th, 1877, that the charge for the springs enumerated therein is 26 cents per pound, while the bill of September 23rd. you have no charge by the pound. In estimating the price of the first sett of springs, did you weigh them and fix the price at your regular rate per pound as you did in the other entries, in other words, I want to know how you estimated that sett of springs at $11?

Ans. The first sett of springs, ordered September 20th, 1876, was a new pattern. There was no regular price established for anybody. We made them after a pattern, not knowing whether we would ever make another sett like them. We charged what we considered such an odd job worth, but in the second order of January 26th, 1877, Mr. Timken requested us to make an estimate and build them by the pound.

R. X Q. 4. You could not then state the weight, or near the weight, of the sett ordered September 20th, 1876?

Ans. I should think about twenty-six pounds, to guess at it.

Re-redirect by WILLIAM M. ECCLES, counsel for the complainants:

R. R. Q. 1. Is there anything appearing on the order book, opposite the order of January 26th, 1877, which causes you to answer, that Mr. Timken requested the Spring Perch Company to give him an estimate or price for making his springs by the

pound; if so, please read it, and let the notary copy it into your deposition?

534 Ans. The following appears on the order book, with quotation marks, "Give price by the pound as low as you can."

Complainant's counsel asks the notary to mark on the margin, opposite said order, and words in the margin, just repeated by the witness, the words, "complainant's order and direction, January 26th, 1877," which is done.

FREDERICK B. HAWLEY.

Subscribed & sworn to before me this 23d day of January, A. D. 1888.

CURTIS THOMPSON,
[SEAL.] *Notary Public.*

535 In the Circuit Court of the U. S. for the Southern District of Ohio, Western Division. No. 3853. In Equity.

HENRY TIMKEN, Com., *vs.* THOS. D. OLIN *et al.*, Def't-. } In Equity. No. 3853.

STATE OF CONNECTICUT, *County of Fairfield,* } *ss:*

I hereby certify that on the 23rd day of January, 1888, before me, Curtis Thompson, a notary public in and for the county of Fairfield and State of Connecticut, at my office, No. 8 Franklin block, in the city of Bridgeport, county of Fairfield, and State of Connecticut, personaliy appeared before me, pursuant to the notice hereto annexed, between the hours of 10 o'clock, forenoon, and 6 o'clock, afternoon, the witnesses named in said notice, and Wm. M. Eccles, Esq., appeared as counsel for the plaintiff and Geo. J. Murray appeared as counsel for defendants, and the said witnesses, Edward Sterling and Frederick B. Hawley, of said Bridgeport, being by me first duly cautioned and sworn to testify the whole truth and being carefully examined, deposed and said as appears by the depositions hereto annexed; and I further certify that the said depositions were then and there reduced to writing, subscribed by the witnesses, and the same have been retained by me for the purpose of sealing up and directing the same to the clerk of the court, as required by law.

And I further certify that the reason why the said depositions were taken was that the said witnesses reside at said Bridge-
536 port, more than one hundred miles from Cincinnati, Ohio, the place where this cause is to be tried.

And I further certify that the fee for taking said depositions, $—, has been paid to me by the plaintiff and the same is just and reasonable.

And I further certify that I am not of counsel or attorney to either of the parties, nor am I interested in the event of the cause.

In testimony whereof I have hereunto set my hand and official seal, at the city of Bridgeport, in the county of Fairfield and State of Connecticut, this 24th day of January, A. D. 1888.

CURTIS THOMPSON,
[SEAL.] *Notary Public.*

537 And afterwards, to wit, on the 7th day of Feb., A. D. 1888, the following depositions were filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Depositions of Charles Gage, F. A. Durgin, John M. Sellers, and A. McElrath.

Circuit Court of the United States for the Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant,
vs.
THOS. D. OLIN and EDWIN D. OLIN, Comprising the Firm of T. D. Olin & Co., Respondents. } In Equity. No. 3853.

The respondents above named will take notice that the complainant above named will examine witnesses in the above-named cause, under the 67th rule in equity as amended, before A. A. Paxson, Esq., notary public, special examiner, at the office of Wm. M. Eccles, southeast corner of Fifth and Olive streets, in the city of St. Louis, State of Missouri, on Monday, the 30th day of January, 1888, beginning said examination at 10 o'clock a. m., of said day, and continue from day to day until completed.

ECCLES AND FISHER,
Solicitors for Complainant.

Received copy at Cincinnati, O., January 26, 1888.
GEO. J. MURRAY,
Solicitor for Defendants.

538 Depositions of witnesses produced, sworn and examined on the 30th day of January, 1888, between the hours of 10 o'clock a. m. and five o'clock p. m. of that day, at the office of Wm. M. Eccles, southeast corner of Fifth and Olive streets in the city of St. Louis, State of Missouri, before me, A. A. Paxson, a notary public, in and for the city of St. Louis, State of Missouri, in a certain cause now depending in the circuit court of the United States, for the southern district of Ohio, western division, in equity, between Henry Timken, complainant, Thomas D. Olin *et al.*, respondents, on the part of the complainant.

CHARLES GAGE, a witness on behalf of the complainant herein, being duly cautioned and sworn to tell the truth, the whole truth and nothing but the truth, and being carefully examined, deposes and says as follows:

1 Q. Give your name, age, business and residence.

A. Charles Gage. My age 52 years. I live in St. Louis, Mo. I am in the stove and mantel business; I am a manufacturer of those goods.

2 Q. Complainant's counsel shows witness a buggy and asks him to examine it, and state where he purchased it, and as near as he can, the date that he purchased it and from whom he purchased it.

A. I have examined this buggy. I bought it, I think,
539 about the middle of the year 1877; I think in May or June. I bought it of Henry Timken; he was then keeping his shop on St. Charles street, between 11th and 12th streets, in St. Louis, Mo. There is where I bought it. I don't remember the number of the house; it was when he kept his shop on St. Charles street.

3 Q. Complainant's counsel offer the buggy just identified by the witness in evidence, and asks the notary to mark it "Complainant's Gage Buggy," (which is done), and asks the witness to state whether or not the springs on said buggy are the same or different springs that were on the buggy at the time he purchased it from Henry Timken, and state whether any changes have been made in any part of said buggy since he purchased it up to the present time; if so, what changes?

A. The springs are the same springs. The buggy and the running gear are the same, except the wheels, which are new. The buggy has been repainted eight or ten times, and repaired probably as many times, more or less, when broken. What I mean by new wheels is, they are not the old wheels first purchased.

4 Q. State who it was that negotiated the sale of that buggy to you—I mean what salesman?

A. It was their general manager. I presume that was his position; he had charge there, as manager and foreman of the place. His name is Mr. Durie. He is now with a Washington avenue house, Jas. Cunningham Son & Co.

5 Q. State whether you ever bought any other buggy from Henry Timken except this.

A. No, sir.

6 Q. State what satisfaction this buggy and springs have given you, and how long you have had them in use.

540 A. The buggy has given entire satisfaction as a first-class road buggy. It has been in my possession ever since I bought it, and has been in constant use off and on. What I mean by off and on is, that buggy has not been out of my stable for four months; in the spring when the roads get good, we take it out. I think about three months in the year is what that buggy has been in actual use, about three months in each year—about thirty-three months in all.

7 Q. What satisfaction did the springs give? And state whether you ever gave Mr. Timken a testimonial in regard to the working of this spring on this buggy.

A. They gave satisfaction and they never cost me a cent for re-

pairs. I gave Mr. Timken a testimonial, I think about the next year after I bought it; it was after I had it a season.

8 Q. Complainant's counsel shows the witness his testimonial in "Timken's Exhibit 2 Prime," and asks him to look at it, and state whether or not he remembers signing the original of which that purports to be a copy.

A. I do. I gave that testimonial. That is about right—that paper is May 1878—about a year after I bought the buggy. The testimonial was given in February.

9 Q. State whether you mean to say that you bought the buggy about a year before the date of the testimonial, or about a year before the date of the paper.

A. I gave the testimonial, after I had the buggy one season, or about eight months.

10 Q. State whether or not, this same kind of spring had been used by anybody else in St. Louis, to your knowledge prior to the time you bought this buggy. And whether or not, the Tim-
541 ken spring was known at that time in St. Louis and was talked about as a new spring or otherwise, if you recollect.

A. Well, there was other vehicles with that spring on at the time I bought it. My attention was called to that fact to induce me to buy it. I think that Mr Dan Catlin was one of the parties I refer to. Mr. Sellers—the roofer—was another. And then I saw several of them on the road when we used to get out to speed our horses.

11 Q. Was this buggy in stock at the time you bought it, or was it made to order for you?

A. It was bought from the stock on the floor.

12 Q. Are you willing to make this buggy an exhibit and attach the same to your deposition?

A. Yes, sir.

The foregoing deposition is objected to as not being taken in compliance with the order of the court, and not being proper as rebuttal testimony.

CHARLES GAGE.

Subscribed and sworn to before me at the time and place between the hours in that behalf first aforesaid.

A. A. PAXSON,
Notary Public.

542 F. A. DURGIN, of lawful age, being produced, sworn and examined on behalf of the complainant, deposeth and saith:

1 Q. State your name, age, residence, and occupation?

A. My name is F. A. Durgin; I am 49 years old; I reside in St. Louis, Mo.; I am a manufacturer of silverware.

2 Q. Please look at Timken's Exhibit 2 Prime and examine the testimonial therein contained over the name of F. A. Durgin, and state whether or not you gave the original testimonial to Mr. Timken, of which that purports to be a copy.

(Objected to as leading and suggestive and for the further reason that the original has not been produced or its loss accounted for, and for the further reason that it calls for testimony not proper in rebuttal.)

A. I did.

3 Q. How did you come to give it?

A. Well, I had taken considerable interest in the Timken spring, having one of those buggies in use on which that spring was placed, and considering it at the time one of the most practical and easy-riding vehicles that I ever used.

4 Q. State as near as you can remember when you bought that vehicle from Mr. Timken referred to in your last answer, and having on the Timken spring.

543 A. As near as I can recollect it I think it was the spring or summer of 1877. I think it was the first part of July.

5 Q. How did the springs on that vehicle correspond or differ from the springs on the buggy before you marked "Complainant's Gage Buggy"?

A. As near as I can recollect I think it is the identical spring I had on the buggy. I don't see any difference in the construction of it.

6 Q. About how long, if you remember, had this Timken spring been in use in St. Louis by Mr. Timken prior to the date of your purchase above referred to, if at all?

A. As near as I could recollect, I should say six months, probably, before it came to my notice. It might have been more. I can't just say.

7 Q. From whom did you buy this buggy spoken of above and where was the shop or salesroom at the time you purchased it?

A. I bought the buggy from Mr. Timken himself. The shop was on St. Charles street—shop and factory both.

8 Q. State, Mr. Durgin, whether you bought that buggy with a Timken spring on it before or after Mr. Timken procured his patent, if you remember.

A. I can't answer that question authoritatively. I don't recollect whether it was before or after.

9 Q. What has become of that buggy, Mr. Durgin?

A. I presume it has worn out long ago. I sold the buggy and bought another one. I think I sold it about a year after I bought it and bought a new one.

(Same objection as to the former deposition.)

F. A. DURGIN.

544 Subscribed and sworn to, at the place and between the hours and on the day in that behalf first aforesaid.

A. A. PAXSON,
Notary Public.

JOHN M. SELLERS, of lawful age, being produced, sworn and examined on behalf of the complainant, deposeth and saith:

1 Q. State your name, age, residence and business.

A. My name is John M. Sellers; I am 51 years of age; I reside in St. Louis, Mo.; my business is composition roofer.

2 Q. How long have you lived in St. Louis?

A. Since May 1844.

3 Q. State whether you ever bought a buggy or road wagon from Mr. Henry Timken; if you did, state as near as you can when it was that you bought it, and what kind of springs it had on it.

A. As near as I can recollect, it was between the months of June and September 1876. I think it was what you may term a road wagon. It had on it the Timken spring.

4 Q. State whether the springs on that road wagon were substantially the same or different from the springs on "Complainant's Gage Buggy," which I now show you, (Complainant's counsel pointing towards Complainant's Exhibit Gage Buggy) and if they differed in any respect, state in what respect they differed.

(Objected to as suggestive.)

545 A. I think that is the identical copy of the spring that I had, and there is no difference.

5 Q. State what has become of the road wagon which you purchased of Mr. Timken.

A. That I can't say; I disposed of it to some one; I exchanged probably.

6 Q. State where Mr. Timken's shop was when you bought that road wagon.

A. It was on the east side of Sixth street, between Morgan and Franklin avenue.

7 Q. In what way or manner did you pay for that road wagon?

A. I was passing by and saw this wagon partly on the sidewalk and partly in the gutter. I took a fancy to it and wanted to purchase it; I told Mr. Timken that I would exchange the buggy I was in, and asked him what boot he would take; he said it was not in a condition; it had better be cleaned up and have another coat of paint on it; I told him I was satisfied to take it as it was; I said again, Now, take my buggy and how much will I have to pay you to take this? I think he told me over fifty dollars; I think sixty or seventy-five dollars—probably seventy-five; I then offered him fifty dollars; I believe the amount was cash, and my buggy, the one I was in. He then hesitated a very short time, and then consented to take fifty dollars with my buggy.

8 Q. State whether or not that buggy had been in use before you purchased it.

A. I think it was.

8 Q. What makes you think it had been in use—what was its appearance?

546 A. It seemed to me that it was rather rough-looking buggy or wagon. I am almost positive it had been in use.

10 Q. State whether or not you noticed the shafts; and, if so, whether or not they had been worn by the horse, or whether or not there were any other worn parts of the buggy which made you think it had been used.

A. No, sir; I can't say that. The only object that I noticed was that the buggy was in rather a rough situation. I noticed the springs only, and he called my attention to it. I think I remarked about in case the spring broke that I would probably fall through with it, and he showed me the bar extending underneath it which would prevent any such accident.

11 Q. Did Mr. Timken at that time say anything about this being a new kind of spring, or anything like that?

(Objected to as leading.)

A. Yes, sir.

12 Q. What did he say in relation to the springs, if you recollect?

A. That I can't exactly recollect.

13 Q. About how long did you use that road wagon after you purchased it, and before you sold it?

A. Probably four or five years.

14 Q. Did you ever give Mr. Timken a testimonial in regard to the use of his spring by you?

A. Yes, sir.

15 Q. Will you please look at Timken's Exhibit 2 Prime, at the testimonial therein above the name of John M. Sellers, and state whether or not that is the testimonial that you gave to Mr. Timken?

A. Yes, sir; that is a copy of it—ten years ago today.

547 16 Q. State whether or not you recollect whether you wrote that testimonial, or whether Mr. Timken wrote it?

A. I wrote it and handed it to Mr. Timken.

17 Q. After referring to that testimonial, state whether or not it is correct as to the time that you had been running that road wagon before the testimonial was signed?

A. It is, sir.

18 Q. What road wagon is referred to in that testimonial, and what springs are referred to?

A. The identical road wagon that I had purchased from Timken—the Timken spring was referred to—the same; I never had the spring repaired—there were no repairs on that buggy—I never had any done on that buggy.

19 Q. Complainant's counsel hands the witness a testimonial in the St. Louis Globe-Democrat, Sunday morning, March 10th, 1878, over the name of J. M. Sellers, and asks him to state whether or not that is the same testimonial which he referred to in Timken's Exhibit 2 Prime?

A. Yes, sir, that is the same.

Complainant offers said testimonial and cut in said paper, and asks the notary to mark it "Complainant's Exhibit the Globe-Democrat, March 10th, 1878," (which is done).

(Objected to as not the best evidence.)

20 Q. How long have you been in the roofing business in St. Louis?

A. Thirty-eight (38) years.

(Same objection as to former depositions.)

548 Cross-examination:

By G. J. MURRAY, counsel for defendants:

1 X Q. How are you enabled to state that it was in 1876 instead of 1877 that you purchased that road wagon from Mr. Henry Timken?

A. Only from my testimonial; I never signed anything but what it was the case.

2 X Q. If it was not for that testimonial you could not fix the date, could you, as to when you purchased that road wagon or buggy?

A. Not to the exact time. My impression would have been at an earlier date.

3 X Q. When was your attention called to that testimonial and by whom?

A. Probably three or four days ago by Mr. Bridges.

4 X Q. Did you remember when you purchased that buggy from Mr. Timken, and what kind of springs it had under it at the time Mr. Olin, who is here present, called upon you in September last?

A. I must surely have done so. Yes, sir. I don't recollect of his calling on me.

5 X Q. Don't you remember of Mr. Olin calling upon you last September during the time of the Grand Army reunion in St. Louis and inquiring of you about that buggy—the time it was purchased and the kind of spring it had under it, and don't you remember telling him that you could not, and also saying to him at that time that you had purchased several buggies from Mr. Timken; that you paid no attention to the springs, and to convince him of that fact you also said that you then had a buggy that you had had in use some time, and that you could not, if you were to be
549 hung for it, tell him what kind of a spring was under that buggy?

A. I can't say that I ever saw the gentleman before. About purchasing other buggies from Mr. Timken, I did do so. Then a long time after the first wagon was purchased I bought a buggy—probably two or three when he was on St. Charles street, between 10th & 11th streets, or 11th & 12th streets. I believe now that I have a faint recollection that I did tell Mr. Olin that I could not tell what kind of spring I had under my buggy if I should be hung for it; I may have used that expression; I have since found out that it was a Brewster spring.

6 X Q. You had not at that time seen a printed copy of your testimonial, had you?

A. No sir; I had not; I saw it frequently after it was published, though.

7 X Q. Was that buggy a full-sized job, or a three-quarter job, like the Gage exhibit here?

A. I think it was a three-quarter seat, with wide wheels to run in the railroad tracks—I am not certain—but two large men could not sit in it; it would be very uncomfortable for two; I used to take the boy with me.

8 X Q. When did you purchase the next buggy from Mr. Timken?

A. I can't say—probably three or four years later.

9 X Q. What kind of a spring did it have under it?

A. Same spring.

10 X Q. What sized job was that, full or three-quarters?

A. It was a full covered-top buggy.

11 X Q. How many buggies altogether did you purchase from Mr. Timken?

550 A. I think three.

12 X Q. When was the last purchase made?

A. I can't say exactly, but I think between eighteen months and two years, if I am not mistaken.

13 X Q. That also had a Timken spring under it?

A. Yes, sir.

14 X Q. Where was Mr. Timken's shop when you made the last purchase?

A. On St. Charles street.

15 X Q. When and from whom did you purchase the buggy with a Brewster spring that you were using last fall?

A. I think it was about a year and a half ago from a German on Broadway and Soulard streets. I don't know the gentleman's name. I am not positive whether it was a Brewster or a Timken, but they told me it was a Brewster spring.

Redirect examination.

By WM. M. ECCLES, Esq., counsel for complainant:

1 R. D. Q. You don't mean to say from your last answer, that that buggy which you have now has the same kind of spring on it which the road wagon had which you first bought of Mr. Timken, do you?

(Objected to as leading.)

A. No, sir, I never saw this spring. I never examined it.
551 That is why that remark came that "if I was to be hung I could not tell what kind of spring was on it." I don't use it at all myself. I bought it for my boy to use. I couldn't tell you now if I was to be hung for it whether it is a Brewster or a Timken spring. I never saw it.

2 R. D. Q. State whether you knew the difference between what is known as the "Timken spring," and what is known as the

"Brewster spring," and whether or not you knew the difference between them at the time you gave that testimony.

A. No, sir.

3 R. D. Q. State whether or not the spring on complainant's Gage buggy, is the Timken spring or the Brewster spring.

(Objected to as not proper in redirect, and is a cross-examination of his own witness.)

A. I claim that this is the identical copy of the one I had in use—the testimonial wagon—as I was stopped continuously by parties that noticed this spring and wagon and wanted to know where I purchased it, as it was so easy to get in and out. I told them. They examined the spring. I frequently got out of the buggy to show them the mode of structure. That was my object in purchasing the wagon—the easy modes of getting in and out.

JOHN M. SELLERS.

Subscribed and sworn to before me on the day at the place and between the hours in that behalf first aforesaid.

A. A. PAXSON,
Notary Public.

552 ARTHUR MCELRATH, of lawful age, being produced, sworn, and examined on behalf of the complainant, deposeth and saith:

1 Q. State your name, age, residence and occupation.

A. My name is Arthur McElrath. I am 56 years of age. I reside in St. Louis, Mo. I have followed the gents.' furnishing business, and that is my business now.

2 Q. How long have you been in business in St. Louis?

A. Since 1872, March.

3 Q. State whether you ever bought a buggy of Henry Timken in St. Louis.

A. I did, sir.

4 Q. State what kind of springs it had on when you bought it, before or after Mr. Timken got his patent.

A. It had what is termed the side-bar Timken patent spring. It was before he got his patent that I purchased it.

5 Q How do you know it was before he got his patent?

A. I wanted to purchase an interest in it. And he gave as his reason that he hadn't yet got his patent—but would see when he got it.

6 Q. State whether the springs on that vehicle, compared or differed from the springs on complainant's Gage buggy, which I now show you?

A. As near as I could judge and remember, they were exactly the same—but I think heavier.

7 Q. Did you ever give Mr. Timken a testimonial of the practical working of said spring?

A. Yes, sir.

553 8 Q. Please look at Timken Exhibit 2 Prime over the name of "A. McElrath," and state whether or not that is a copy of the testimonial?

A. I think as near as I can recollect that is the wording of it.

9 Q. Who wrote that testimonial, you or Mr. Timken, if you recollect?

A. I did, sir.

10 Q. How did you come to give that testimonial?

A. He sent his foreman, Mr. Durie, to ask for it. He may have asked for it himself. I think perhaps he did—but I know Mr. Durie came for it.

11 Q. How did it come that you didn't purchase an interest in the patent after it was issued?

A. I think from the time that I got my buggy and the time that he got his patent, he had taken orders and disposed of so many that he thought it was too good a thing to sell, and gave me to understand that he thought there were members enough—stockholders enough already, and put me off. I rather think it was about the time Mr. Bridges married his daughter, and he had to take him in or something like that.

(Same objections as to former deposition.)

Cross-examination.

By G. J. MURRAY, Esq., counsel for respondents:

1 Q. Did Mr. Timken have his application for a patent filed at the time you purchased your buggy from him?

A. I understood so.

554 2 Q. How much did you offer him for an interest in the patent?

A. I never offered him, sir.

3 Q. What became of that buggy?

A. I traded it off to Mr. Varney for a park wagon made in the same way.

4 Q. When did you make that trade?

A. I cannot tell you as regards any positive dates.

5 Q. Tell as near as you can.

A. It may have been two years after, maybe three—I could not say.

A. McELRATH.

Subscribed and sworn to before me on the day and at the place and between the hours in that behalf aforesaid.

A. A. PAXSON,
Notary Public.

555 In the Circuit Court of the United States for the Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Composing the Firm of T. D. Olin & Company, Respondents.
} In Equity. No. 3853.

STATE OF MISSOURI, *City of St. Louis,* } *ss:*

I hereby certify that on the 30th day of January 1888, before me, A. A. Paxson, a notary public, in and for the city of St. Louis, and State of Missouri, at the office of Wm. M. Eccles, Esq., southeast corner of 5th and Olive streets, in the city of St. Louis, Missouri, personally appeared, pursuant to the notice hereto annexed, between the hours of 10 o'clock a. m. and 5 o'clock p. m. Charles Gage, F. A. Durgin, John M. Sellers and Arthur McElrath, the witnesses, and William M. Eccles, Esquire, appeared as counsel for complainant, and George J. Murray, Esquire, appeared as counsel for respondents, and the said Charles Gage, F. A. Durgin, John M. Sellers and Arthur McElrath being by me first duly cautioned and sworn to testify the whole truth, and being carefully examined, deposed and said as appears by the depositions hereto annexed.

556 And I further certify that the said depositions *was* then and there reduced to writing by me, and *was*, after *it* had been reduced to writing, subscribed by the witnesses, and the same has been retained by me for the purpose of sealing up and directing the same to the clerk of the court as required by law.

And I further certify that I am not of counsel or attorney to either of the parties, nor am I interested in the event of the cause.

And I further certify that the fee for taking said depositions, $25.00, has been paid to me by the complainant, and the same is just and reasonable.

In testimony whereof, I have hereunto set my hand and official seal at the city of St. Louis, in the State of Missouri, this 30th day of January, A. D. 1888.

A. A. PAXSON,
Notary Public.

557 And afterwards, to wit, on the 15th day of June, A. D. 1888, the following opinion of Judge George R. Sage was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Opinion of Judge Geo. R. Sage.

U. S. Circuit Court, S. D. O., Western Division.

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Partners as T. D. Olin & Co., Defendants.
} In Equity. No. 3853.

SAGE, *J.*:

The complainant's suit for infringement is based upon three patents:

1. No. 197,689, to Henry Timken, for improvement in carriage springs, dated Nov. 27, 1877; application filed October 27, 1877. The invention consists, as stated in the specification, in the attachment of springs to the bottom of the body of a buggy or wagon at the sides and crossing the bottom of the body and connecting with the side bars on the opposite sides of the body. The claim is: "In combination with the side bars C C and body D the springs G G attached to the under side of the body at opposite sides, then crossing each other, and connected to the side bars at opposite sides, substantially as herein set forth."

2. No. 239,850, to Cyrus W. Saladee, for improvements in road wagon, dated April 1, 1881; application filed February 7, 1881. This invention consists, according to the specification,
558 of flexion springs, the inner ends of which terminate at and are attached to the bottom of the body seat or other object which they are to support, at or near its centre, and their outer ends are connected to the side bars or frame on opposite sides. The claim is as follows: 'A spring platform consisting of flexion springs arranged in pairs, the inner heavier ends of each pair being connected side by side to the central portion of the body or object supported, and the flexion portion of each spring curving downward from the center and then upward to its connection with the frame, all substantially as set forth."

3. No. 9542, reissue, dated January 25, 1881, upon application filed Nov. 27, 1880 (original No. 157,430, dated Dec. 1, 1874), for spring for vehicles. The patentee sets forth in his specification that his invention consists in the employment of two independent crossed-leaf metal springs, the ends of which are rigidly secured to the opposite ends of a cross-piece attached to the body, each spring preferably being formed or provided with a socket, and the two sockets meeting each other at the center of the cross-piece attached to the body so as to enable an axis or pivot bolt to be passed through both sockets for enabling the springs to turn thereon when the body is elevated or depressed. A further feature of the invention consists in securing a bearing and re-enforcing plate of metal to the under side of the cross-piece attached to the body, said plate being provided with pendent flanges at both ends to serve as bearing points for the ends of the springs in order to prevent any lateral movement of the

same, and to serve, in connection with fastening bolts, to securely hold the springs in place. The claims are as follows:

559 1. The combination of two springs, each composed of one or more leaves and hinged together at their crossing points, and provided with an eye at one end to connect with the side sills of the running gear and at the other end connected with a cross-piece attached to the body of the vehicle, substantially as described.

2. The two leaf springs, each provided with a socket at their crossing point, in combination with a pivot or axis bolt, substantially as described.

3. The combination of two springs, side by side and connected together, with the side sills and cross-piece for supporting the body in a horizontal position between the side sills, substantially as described.

4. The reinforcing bearing plate I, having end flanges, in combination with the cross-piece attached to the body and the connected cross-strings, substantially as described.

5. In combination with the body of a vehicle and the side sills or bars, the two springs crossing each other side by side and attached to a cross-piece, substantially as described.

The Tilton and Saladee patents became by assignment the property of the complainant, the Tilton patent on the 22d March, '81, and the Saladee on the 8th of December, '84.

A careful examination of the record has confirmed the impressions made by the very full and complete argument at the hearing and has brought the court to the following conclusions:

1. The combination patented to Timken displays invention. It is not anticipated by any of the devices in evidence for the defendants. This view is strongly reinforced by the fact found from the record of the general recognition of the invention by the trade and the large and long-continued demands for it.

560 2. The Saladee patent displays invention and is valid.

3. The Tilton reissued patent is valid. The introduction of the word "preferably" in the specification did not invalidate the reissue nor did the addition of the fifth claim.

4th. The defendant infringes the Timken patent, the Saladee patent, and the second, third, and fifth claims of the Tilton reissued patent. The decree will be accordingly for an injunction and account with costs.

And afterwards, to wit, on the 29th day of June, A. D. 1888, the following petition for rehearing was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Petition for Rehearing.

United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
T. D. OLIN *et al.* } In Equity. No. 3853. Petition for Rehearing.

To the Hon. Geo. R. Sage, judge:

The defendants, Thomas D. Olin and Edwin D. Olin, humbly petition this honorable court that the entry of decree in this cause be stayed and for leave to hear or reargue the cause for reasons apparent upon the face of the record and beg to submit the following reasons why such reargument should be granted.

Respectfully, GEO. J. MURRAY,
Solicitors for Respondents.

Received copy this 29th day of June, 1888.
WM. HUBBELL FISHER,
Of Sol. for Complainant.

561 And afterwards, to wit, on the 26th day of November, A. D. 1890, the following motion, amended answer, and affidavit *was* filed in the clerk's office of said court, clothed in the words and figures following, to wit:

United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMMEN
vs.
T. D. OLIN and E. D. OLIN, Composing the Firm of T. D. Olin & Co. } In Equity. No. 3653.

Please take notice that on the petition, with a copy of which you are herewith served, and on all the pleadings, proceedings, and papers in this cause, including the second amendment to the answer, also annexed hereto, and on the affidavit, with a copy of which you are herewith served, and photographic copies of the device therein referred to, which are subject to inspection at my office, a motion will be made on behalf of defendants before this honorable court, at the United States court-rooms in the city of Cincinnati, on the 26th day of November, 1888, at the opening of the court on that day or as soon thereafter as counsel can be heard, for an order that this cause be reopened as prayed for in said petition; that leave be granted to file the amendment to answer, and a time fixed for taking proofs as to the matters referred to in said amended answer, and that the cause be reheard upon such matters as well as those set forth in the motion for rehearing now on file, and for such other and further relief as may be just and equitable.

Yours respectfully, GEO. J. MURRAY,
Sol. for Defendants.

To Wm. H. Fisher, compl't's sol.

562 United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
T. D. OLIN and E. D. OLIN, Composing the Firm of T. D. Olin & Co.
} In Equity. No. 3853.

To the judges of the circuit court of the United States for the southern district of Ohio:

Thomas D. Olin and Edwin D. Olin, the defendants in the above-entitled suit, respectfully represent and state as follows:

I. This suit is one brought for an alleged infringement of three letters patent, to wit, Josepg Tilton, reissued letters patent No. 9542, dated January 25, 1881; Henry Timken, No. 197,689, dated Nov. 27, 1877; Cyrus W. Saladee, No. 239,850, dated April 5, 1881.

The cause came on for hearing on or about the 6th day of March, 1888, and — still pending on motion for rehearing.

II. That since the hearing of the cause there has come to the knowledge of defendants that the several inventions shown, described, and claimed in the three letters patent sued upon were in public and common use in the United States more than two years prior to Nov., 1874, and that the vehicle provided with spring couplings containing all the material and substantial parts and combination of parts shown, described, and claimed in the theree letters patent sued upon is now in the possession of Captain

563 Ben. Richardson, whose present address is No. 63 E. 125th street, Lincoln cottage, Harlem, New York, and has been in his possession since long prior to 1872 and has been publicly exhibited at various fairs and expositions prior to 1872; that the said vehicle was publicly used prior to the beginning of the present century—is authentically reported to be the coach used by President Geo. Washington during this term as President of the U. States; and that the springs which couple the driver's seat to the gear, now upon the said vehicle, *was* known to many persons in the United States many years prior to the application upon which any one of the several letters patent on which this suit is founded was made.

III. That none of said matters were known to these defendants or either of them or to either of their counsel prior to the hearing of this cause and were not ascertained, notwithstanding the searches of defendants and their counsel to ascertain all matters bearing upon the validity, scope, and construction of the said three letters patent upon which this suit is brought, until early in October last.

Your petitioners for proof of the matters contained in said petition respectfully refer to the affidavits annexed hereto. Wherefore your petitioners pray that leave may be granted to file an amendment to the answer setting up the facts above referred to; that time be fixed for taking testimony in support of the allegations therein contained; that this cause may be reheard, and that a decision may be rendered dismissing the bill of complaint with costs.

And your petitioners will ever pray.

THOS. D OLIN.

564 SOUTHERN DISTRICT OF OHIO, } ss:
County of Hamilton, State of Ohio, }

Thomas D. Olin, one of the defendants above named, being first duly sworn, deposes and says that he has read the foregoing petition subscribed by him and knows the contents thereof; that the same is true of his own knowledge except as to the matters therein stated upon information and belief, and to these matters he believes it to be true.

THOS. D. OLIN.

Subscribed and sworn to before me this 26th day of November, 1888.

DAVID S. OLIVER,
[SEAL.] *Notary Public, Hamilton Co., Ohio.*

40 due notary.
D. S. O.

United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
T. D. OLIN and E. D. OLIN, Composing the Firm of T. D. Olin & Co. } In Equity. No. 3853.

Second Amendment to Answer.

Upon leave of court obtained the defendants hereby further amend their answer to the bill of complaint and amended
565 bill by inserting after the last amendment preceding defendants' signature:

And these defendants, further answering, on information and belief say that *they* neither said Joseph Tilton, Henry Timken, or Cyrus W. Saladee was the original and first inventor or discoverer of any material or substantial part of the thing or things patented aforesaid in any of the said letters patent sued upon, but, on the contrary thereof, that the same thing and things in all essential features and particulars and the same principles and combinations had been, previous to the said inventions of said Joseph Tilton, Henry Timken, and Cyrus W. Saladee or either of them, known to Capt. Ben. Richardson, who now resides at No. 63 E. 125th St., Lincoln cottage, Harlem, New York, and many others whose names and places of residence are not now known to these defendants, but whose names and residences, when ascertained, they pray leave to insert herein. Defendants further say that the same was publicly used in the United States more than two years prior to 1872, which use was known to said Richardson and many others; that the same spring couplings were upon a coach used by President George Washington, prior to the beginning of the present century, at Philadelphia, State of Pennsylvania, and the vehicle containing the said inventions has been publicly exhibited as an ancient relic at

various public fairs and exhibitions prior to 1872 and since that date, and notably at Woods' museum, at Philadelphia, in 1855; the Centennial exposition at Philadelphia, in 1876; at the Centennial exposition at Columbus, Ohio, during the past summer, and is still in existence in substantially, if not identically, the same condition it was and has been for the past century.

THOS. D. OLIN.

566 SOUTHERN DISTRICT OF OHIO, } ss:
State of Ohio, County of Hamilton, }

Thomas D. Olin, one of the defendants above named, being first duly sworn, says that he has read the above-named amended answer subscribed by him and knows the contents, and the same is true of his own knowledge except as to the matters therein stated upon information and belief, and as to these matters he believes them to be true.

THOS. D. OLIN.

Sworn to and subscribed to before me this 26th day of Nov.

DAVID S. OLIVER, [SEAL.]
Notary Public, Hamilton County, Ohio.

40 due notary.
D. S. O.

United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
T. D. OLIN and E. D. OLIN, Composing the Firm of T. D. Olin & Co. } In Equity. No. 3853.

STATE OF OHIO, } ss:
County of Hamilton, }

Geo. J. Murray, being duly sworn, deposes and says that
566½ he is the solicitor and of counsel for defendants herein; that he believes that the matters set forth in the petition for rehearing and in the amended answer hereto annexed to be good and valid defences to this suit, and that such matters came to his knowledge only recently, since the hearing of the cause and the last petition for rehearing; that the petition and amended answer are not for the purpose of delay, and hereby waives additional replication to the amended answer.

GEO. J. MURRAY.

Subscribed and sworn to before me this 26th day of November, 1888.

DAVID S. OLIVER, [SEAL.]
[SEAL.] *Notary Public, Hamilton County, Ohio.*

40c. due notary.
17—234

567 And afterwards, to wit, on the 26th day of Nov., A. D. 1888, the following affidavit was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Affidavit of Henry Timken, Stipulation Attached.

United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
T. D. OLIN and E. D. OLIN. } In Equity. No. 3853.

Stipulation.

In order to save delay and expense of taking depositions to prove the public knowledge and use — what is known as President Washington's coach, set up as anticipating or limiting the inventions of Henry Timken, Joseph Tilton, and Cyrus W. Saladee, as claimed in the patents sued upon, it is hereby stipulated and agreed by counsel and the parties to the above-entitled suit as follows:

That the vehicle referred to was in its present condition, in so far as the driver's seat, the compound couplings supporting it, and the frame-work to which the light ends of the compound couplings were connected, and that the same was known to the public and publicly used in the United States long prior to the year 1870, and that the photographs, marked respectively Respondents' Exhibits Nos. 1, 2, and 3, were taken from said coach while it was on exhibition as an old relic at the Centennial exposition at Columbus, Ohio, during the month of September, 1888, and correctly represent the coach or its parts as they were at that time.

568 It is hereby stipulated and agreed that the coach in its present condition was exhibited at the Centennial exposition at Philadelphia in the summer and fall of 1876; that Henry Timmen, complainant above named, visited the said exposition in 1876; that the affidavit of Henry Timken (filed in this case) to the effect that he did not know of the use or existence of the said Geo. Washington coach prior to the fall of the present year, eighteen hundred and eighty-eight (1888), at which time it was exhibited at the Columbus Centennial exposition, shall be considered as of the same force and effect as if testified to in the form of a regular deposition in this suit and may be read in evidence.

That the coach as a whole and as shown by the photograph was sold to one Richardson, a relic collector of New York city, some time between the death of President Washington and the year 1870, as a coach which George Washington owned and used in his lifetime; that this coach has been kept by said Richardson as a relic, and that the same was exhibited in its present condition as a relic at the Centennial at Philadelphia in 1876, at Woods' museum, in Philadelphia, in 1855, and at Columbus, Ohio, in the fall of 1888, at the Centennial exposition, and that a coach *pf* George Washington was referred to in the June, 1855, number of the Coach Makers'

Journal, published by C. W. Saladee, at Cincinnati, Ohio, which number may be introduced in evidence.

It is further stipulated and agreed that the following is a correct description of the several views and of the parts as they existed in the said vehicle at the time the views were taken
569 and as the same existed prior to the year 1870:

Fig. 1 is a side elevation of the complete coach.

Fig. 2 is a photographic view in front elevation of the driver's seat and the upper part of the body.

Fig. 3 is a view taken at an angle to the position shown in Fig. 2, and shows the parts in perspective.

A represents the driver's seat, which is at least four feet from the top of the front ax*el* by actual measurement.

B B are two iron columns or standards secured upon and *rise* above the foot box, which foot box rests upon cross and lateral pieces, and which lateral pieces rest upon a fifth-wheel, said foot box being secured to the brace or rest which carries the rigid perch extending under the body, the body itself being supported by two straps in front and two straps in the rear, one end of each of these straps being connected to the iron brace connected to the body, and the other or upper end of said strap- being connected to the upper end of the vertical spring, whose lower end is connected to a projection from a fifth-wheel and rests against the second brace and rising from the forward portion of the vehicle gear.

B′ are cross heads or bars secured to the column B′, and are arranged parallel to the seat sides and line of draft. *b* is a cross-bar*r* *are* connecting the columns B, near their top, and prevents them from being drawn towards each other by the weight of the seat on the straps, which straps are a part of the compound coupling under the seat. *b′* are curved braces connecting the foot rest C to the columns B. E represents compound couplings, which connect the driver's seat to the bars B′. These couplings are each composed of two steel leaves, *e′*, the lower one of which is slightly curved
570 up at the end, and of a long, heavy leather strap, e^2. . The lower one of these steel leaves is curved at the end, to prevent it from cutting into the leather strap in its action, and have near their ends a metal loop fastened to the steel part (and passing around the steel leaf and the leather strap), which loops serves to hold the leather strap to the steel part, and which is sufficiently loose around the leather strap to allow the leather strap to move back and forth through the loop on the bottom of that part of the steel leaf when the coupling is in action or the steel part to move on the top of the leather strap.

This leather strap is a long, heavy piece of leather, attached to the seat at the same point where the steel parts of the coupling are attached, and by the same means of attachment to the seat, to the point where it passes through the metal loop, thence it passes from the end of the steel part of the coupling a distance of at least one-eighth of the entire length of the steel part of the coupling, and connects with the cross head or bar B′ by passing around its end, forming a loop.

These loops are formed by the straps passing around the ends of the bars and doubling back on themselves, and the leather strap, after passing around the bar and doubling back on itself, is confined or held together by bolts e^4, situated between the end of the steel part and the bar B', which bolts have thumb nuts e^5, and metal washers between the heads of the bolts, thumb nuts, and the leather strap, which washer- prevent the heads and thumb nuts from cutting the leather. The ends of these leather straps e^2 which lap around the bar B' are provided with a series of holes, as at e^6, which holes are adapted to receive the bolts in different holes, through two of which holes the bolts e^4 pass.

571 These leather straps have th-se holes, thumb nuts, and bolts, to enable the stretch of the leather stap e^2 to be taken up so that it can always be kept tight to prevent as much as possible the side, end, and upward pitching of the seat.

GEO. J. MURRAY,
Solicitor for Def't.

M. M. ECCLES,
WM. HUBBELL FISHER,
Att'ys for Com.

U. S. C. C., S. D. Ohio, W. D.

HENRY TIMKEN
vs.
T. D. OLIN and E. D. OLIN. } Equity. No. 3853.

CITY OF ST. LOUIS, }
State of Mo., } *ss:*

Henry Timken, the above-named complainant, being duly sworn, on his oath says that he never saw or heard of the coach which is known in the attached stipulation as "George Washington's coach" until the fall of 1888, nor did he know of its use or existence prior to that time.

HENRY TIMKEN.

Sworn to and subscribed before me, the undersigned notary public, on this 24th day of November, 1888, at St. Louis, Mo.

[SEAL.] EDWARD V. RINGO,
Notary Public.

572 And afterwards, to wit, on the 12th day of January, A. D. 1890, decision of Judge Sage was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Decision of Judge Sage.

This is not a case for rehearing, because the court, responding to the request of counsel for an early decision, limited the opinion to a statement of conclusions. Counsel for defendants erroneously infer that the state of the art preceding the inventions and patents sued upon and the patents introduced in evidence as anticipating

the complainant's were overlooked, and therefore proceed to reargue the points which they argued at length orally on the hearing and also in their printed briefs.

As to the proposition that "the defendants were led to believe, from the testimony introduced by complainant in rebuttal, that the Tilton and Saladee patents would not be relied upon at the
572½ *at the* hearing and were therefore taken by surprise," there are two answers. 1st. They were bound to anticipate and be prepared for every point that could be made upon the evidence, and, 2nd, upon their request they were given time to prepare and were allowed to file an additional brief after the hearing, thereby having ample opportunity to recover from the surprise to which they cannot now be allowed to appeal for a rehearing.

The court is not disposed to respond favorably to the appeal of counsel that it will, in passing upon the petition for rehearing, enter into the details of the record and prepare a full opinion. That would be in the line of establishing a bad and mischievous precedent, and, in view of the brief filed by counsel for defendants rearguing the entire cause, it would be in effect granting the rehearing while in terms denying it. The court, will, however, say that it rejected the testimony of the witness, Priest, as altogether unreliable, the record making it clear not only that he contradicted himself on material points under circumstances causing his contradictory statements to amount to impeachment, but also that in a prior litigation between complainant and parties other than these defendants and involving the patents in suit in this cause, he was in the market as a witness for sale to either side.

Since the filing of the petition for rehearing the court has, upon defendants' application opened the testimony and permitted them to offer a stipulation and exhibits relating to a device which they claim anticipates, or at least, limits each of the patents in suit. This is President Washington's coach, which was sold to a relic collector of New York city at some time between the death of President Washington and the year 1870 as a coach which he used in his lifetime. It was exhibited as a relic at Wood's
573 museum in Philadelphia in 1855, at the Centennial exposition at Philadelphia in 1876, and at the Centennial exposition at Columbus, Ohio, in the fall of 1888. The complainant visited the Centennial exposition at Philadelphia, but he testified that he did not see nor hear of this coach then nor at any other time until the fall of 1888. The defendants insist that the compound couplings supporting the driver's seat and the frame work to which their light ends are connected anticipate or at least limit each of the patents sued upon. Each of these couplings is composed of two steel leaves, the lower one of which is slightly curved up at the end, and of a long leather strap. The curve of the lower steel leaf at its end is to prevent its cutting into the leather strap in its action. There is also near the end of the lower steel leaf a metal loop, fastened to and passing over the steel, and then down under and around the leather strap, loosely enough to permit its play back and forth, and to permit the leaves also to move back and forth when the coupling

was in action. The leather strap, which is long and heavy, is attached to the driver's seat at the same points where the steel parts of the coupling are attached. At the other or outer end it is attached to the side of the frame work already referred to by passing around its end and forming a loop. Doubling back on itself it is confined or held together by bolts provided with thumb nuts and metal washers. The strap is provided with holes adapted to receive the bolts and so located as to permit the tightening of the strap whenever that might be necessary, as it is stated in the stipulation, "to prevent as much as possible the side, end, and upward pitching of the seat."

574 Without entering farther into details the last expression quoted above from the stipulation is the key to the radical difference between this coupling and the inventions covered by complainant's patents. They are surprisingly alike in appearance, as shown by photographs, but the coupling is nothing more than an old-fashioned thorough-brace, long since out of date, and discarded from general use. The trouble with it is, or was, that it would not prevent the pitching of the seat upwards and sideways and endways. The complainant's inventions do prevent that very thing and that, too, more effectually than anything that preceded them. They have been for many years recognized as valuable and patentable inventions by practically the entire body of carriage-makers in the United States, who have paid in royalties to the complainant for the use of these inventions more than $800,000. What better confirmation is needed of the proposition that there is something more than skill or mere adaptation in the complainant's improvement?

The decree as indicated by the opinion on file will be entered for an injunction and account, excepting that by mistake the second, third, and fifth claims of the Tilton reissued patent are specified as the claims infringed, instead of the third, fourth, and fifth claims, which are those infringed. The decree will be accordingly.

575 And afterwards, to wit, on the 18th day of January, A. D. 1889, an entry was made upon the journal of said court clothed in the words and figures following, to wit:

Journal Y, p. 167.

This case having come on to be heard upon the proofs, evidence, and pleadings before Hon. George R. Sage, judge, and having been fully argued by counsel for both complainant and defendants, and the court having fully considered the cause as to both the law and the evidence, and the court having thereupon decided the case in favor of the complainant the 15th day of June, 1888, and thereafter the case having been reopened, on motion of defendants, and evidence introduced by them in relation to the use of the George Washington coach, and the said evidence having been fully argued, heard, and considered by the court, and a motion for a reargument and a rehearing then pending having been heard, considered, and overruled by the court—

Now, therefore, the court, on full consideration, hath heretofore adjudged, ordered, and decreed, and doth hereby find, adjudge, order, and decree as follows:

1. That patent No. 197,689 granted by the U. S. of America to Henry Timken, the complainant herein, for improvements in carriage springs, and dated the 27th day of Nov., 1877, is a good and valid patent and displays invention, and that Henry Timmen, the complainant, is the first, original, and sole inventor thereof, and it is not anticipated by any of the patents or devices in evidence for the defendants, and that the defendants have infringed said patent and the exclusive rights of the complainant thereunder by the manufacture and sale by the defendants of their spring in *in*
576 evidence.

2nd. That patent No. 239,850, issued to Cyrus W. Saladee for improvements in road wagons, dated April 1st, 1881, is a good and valid patent and displays invention and is the property of the complainant.

And that the defendants have infringed said patent and the exclusive rights of complainant thereunder.

3rd. That the reissue patent, No. 9542, dated January 25, 1881 (original being 157,430, dated Dec. 1, 1874), granted to Joseph Tilton and Rufus M. Stivers for springs for vehicles, is a good and valid patent; that the introduction of the word "preferably" in the specification did not invalidate the reissue, nor did the addition of the fifth claim; that it is the property of the complainant, and that the defendants have infringed the 3rd, 4th, and 5th claims of said reissued patent and the rights of the complainant therein.

And it is further ordered, adjudged, and decreed that the complainant recovers of the defendants, Thomas D. Olin and Edwin D. Olin, all the profits, gains, and advantages, which the defendants or either of them have received or made or realized, or which have accrued to them or either of them from the infringement of either or all of the patents aforesaid; and that in addition he recover of the defendants all damages sustained by him by reason of the infringement or infringements aforesaid; and that the defendants pay the costs of this case.

And upon suggestion by the parties, through counsel, it is further ordered and decreed that the case be referred to Hon. B. R. Cowen, as master, by the court, to take and present to this court an account of the profits and damages aforesaid, according to law, ac-
577 cruing to the complainant by reason of any or all of the aforesaid infringements and the number of springs made, and also the number of springs sold by the defendants.

And it is further adjudged, ordered, and decreed that a perpetual injunction issue in this case against the said defendants herein, Thomas D. Olin and Edwin D. Olin, and each of them, restraining them and each of them and their agents, clerks, servants, and employees and all persons acting by and under their authority and direction or by the authority and direction of either of them from infringing or attempting to infringe any or all of said patents aforesaid, and restraining and enjoining them and each of them,

their agents, clerks, servants, and employees and all those acting by, through, or under them or by their authority from making, using, or selling or advertising or offering to sell or in any way disposing of or offering to dispose of vehicles or vehicle springs embracing any of the inventions or improvements described and claimed in patent No. 197,689, to Henry Timken, dated November 27, 1877, or in patent to Cyrus W. Saladee, dated April 1st, 1881, No. 239,850, or in the 3rd, 4th, and 5th claims of reissued patent to Joseph Tilton and Rufus M. Stivers, dated January 25, 1881, and restraining them from making or selling or offering to sell springs attached to the bottom of the body of a vehicle at the opposite sides of the bottom and crossing the bottom of the body and connecting with side sills or side bars on the opposite sides, and also from selling springs or offering to sell them or other parts of said combination to be used in said combination or which will enable others to infringe said combination.

578 And they and each of them are hereby particularly restrained and enjoined from making, using, or selling or offering for sale spring platforms consisting of flexion springs arranged in pairs, the inner heavier ends of each pair being connected side by side to the central portion of the body or object supported and each spring curving downward from the center and then upward to its connection with the frame, and from selling or offering for sale or otherwise disposing of springs or other parts of said combination to be used in said combination or which will enable others to practice said combination.

They and each of them are particularly enjoined and restrained from making, using, or selling or offering to sell a combination of two springs side by side and connected together by a reinforcing plate, with side sills and a cross-piece attached to the body for holding the body in a horizontal position between the side sills, and from selling or offering for sale any part of said combination to be used in said combination or which will aid others to practice said combination.

They and each of them, their agents, servants, clerks, and employees are perpetually enjoined from making, using, or selling or advertising for sale or offering to sell a combination consisting of a vehicle body, side sills or bars, two springs crossing each other side by side and attached to a cross-piece, or substantially said combination, and from selling or offering for sale any springs or other parts of said combination to be used by others to infringe said combination.

And they are enjoined from making, using, or selling the combination of two springs side by side and connected together with side sills and cross-pieces for supporting the body in a horizontal position between the side sills, or substantially said combi-

579 nation.

All pursuant to the prayer of said bill of complaint.

And afterwards, to wit, on the 18th day of January, A. D. 1889, there was issued out of the clerk's office of said court the following

perpetual injunction, directed to the marshal of said district. Said injunction is clothed in the words and figures following, to wit:

Perpetual Injunction.

THE UNITED STATES OF AMERICA, *Southern District of Ohio, Western Division,* } ss:

At a stated term of the circuit court of the United States of America within and for the western division of the southern district of Ohio, in the sixth judicial circuit of the United States of America, begun and had in the court-rooms, at the city of Cincinnati, O., in said district, on the first Tues- of October, being also the second day of that month, in the year of our Lord one thousand eight hundred and eighty-eight, and of the Independence of the United States of America the one hundred and thirteenth—present, the Hon. Geo. R. Sage, district judge—on Friday, the 18th day of January, A. D. 1889, among the proceedings had were the following, to wit:

HENRY TIMKEN
vs.
THOMAS D. OLIN, EDWIN D. OLIN, Partners as T. D. Olin & Co. } In Equity. # 3653.

580 This case having come on to be heard upon the proofs, evidence, and pleadings before Hon. George R. Sage, judge, and having been fully argued by counsel for both complainant and defendants, and the court having fully considered the cause as to both the law and the evidence, and the court having thereupon decided the case in favor of the complainant the 15th day of June, 1888, and thereafter the case having been reopened on motion of defendants, and the evidence introduced by them in relation to the use of the George Washington coach, and the said evidence having been fully argued, heard, and considered by the court, and a motion for a reargument and a rehearing then pending having been heard, considered, and overruled by the court—

Now, therefore, the court, on full consideration, hath heretofore adjudged, ordered, and decreed, and doth hereby find, adjudge, order, and decree, as follows:

1st. That patent No. 197,689, granted by the United States of America to Henry Timken, the complainant herein, for improvements in carriage springs, and dated the 27th day of November, 1877, is a good and valid patent and displays invention, and that Henry Timmen, the complainant, is the first, original, and sole inventor thereof, and it is not anticipated by any of the patents or devices in evidence for the defendants, and that the defendants have infringed said patent and the exclusive rights of the complainant thereunder by the manufacture and sale by the defendants of their spring in evidence.

2nd. That patent # 239,850, issued to Cyrus W. Saladee, for im-

provements in road wagons, dated April 1, 1881, is a good and
581 valid patent and displays invention and is the property of the complainant.

And the defendants have infringed said patent and the exclusive rights of complainant thereunder.

3rd. That the reissued patent # 9542, dated January 25, 1881 (original being 157,430, dated Dec. 1st, 1874), granted to Joseph Tilton and Rufus M. Stivers for springs for vehicles, is a good and valid patent; that the introduction of the word "preferably" in the specification did not invalidate the reissue nor did the addition of the fifth claim; that it is the property of the complainant, and that the defendants have infringed the 3rd, 4th, and 5th claims of said reissued patent and the rights of the complainant therein.

And it is further ordered, adjudged, and decreed that the complainant recovers of the defendants, Thomas D. Olin and Edwin D. Olin, all the profits, gains, and advantages which the defendants or either of them have received or made or realized or which have accrued to them or either of them from the infringement of either or all of the patents aforesaid, and that in addition he recover of the defendants all damages sustained by him by reason of the infringement or infringements aforesaid, and that the defendants pay the costs of this case.

And upon suggestion by the parties, through counsel, it is further ordered and decreed that the case be referred to Hon. B. R. Cowen, as master, by the court, to take and present to this court an account of the profits and damages aforesaid, according to law, accruing to the complainant by reason of any or all of the aforesaid infringements and the number of springs made, and also the number of springs sold by the defendants.

582 And it is further adjudged, ordered, and decreed that a perpetual injunction issue in this case against the said defendants herein, Thomas D. Olin and Edwin D. Olin, and each of them, restraining them and each of them and their agents, clerks, servants, and employees and all persons acting by and under their authority and direction or by the authority and direction of either of them, from infringing or attempting to infringe any or all of said patents aforesaid, and restraining and enjoining them and each of them, their agents, clerks, servants, and employees and all those acting by, through, or under them or by their authority, from making, using, or selling or advertising or offering to sell or in any way disposing of or offering to dispose of vehicles or vehicle springs embracing any of the inventions or improvements described and claimed in patent No. 197,689 to Henry Timken, dated Nov. 27, 1877, or in patent to Cyrus W. Saladee, dated April 1, 1881, # 239,850, or in the 3rd, 4th, and 5th claims of reissued patents to Joseph Tilton and Rufus M. Stivers, dated January 25, 1881, and restraining them from making or selling or offering to sell springs or other parts of said combination or combinations in said patents or any one of them to be used in said combination or combinations.

And they and each of them are particularly restrained and enjoined from making, selling, or advertising or offering to sell springs

attached to the bottom of the body of a vehicle at the opposite sides of the bottom and crossing the bottom of the body and connecting with side sills or side bars on the opposite sides, and also from selling springs or offering to sell them or other parts of said combination to be used in said combination or which will enable others to infringe said combination.

583 And they and each of them are hereby particularly restrained and enjoined from making, using, or selling or offering for sale spring platforms consisting of flexion springs arranged in pairs, the inner heavier ends of each pair being connected side by side to the central portion of the body or object supported and each spring curving downward from the centre and then upward to its connection with the frame, and from selling or offering for sale or otherwise disposing of springs or other parts of said combination to be used in said combination or which will enable others to practice said combination.

They and each of them are particularly enjoined and restrained from making, using, or selling or offering to sell a combination of two springs side by side and connected together by a reinforcing plate with side sills and a cross-piece attached to the body for holding the body in a horizontal position between the side sills, and from selling or offering for sale any part of said combination to be used in said combination or which will aid others to practice said combination.

They and each of them, their agents, servants, clerks, and employés, are perpetually enjoined from making, using, or selling or advertising for sale or offering to sell a combination consisting of a vehicle body, side sills or bars, two springs crossing each other side by side and attached to a cross-piece, or substantially said combination, and from selling or offering for sale any springs or other parts of said combination to be used by others to infringe said combination.

And they are enjoined from making, using, or selling the combination of two springs side by side and connected together with side sills and cross-pieces for supporting the body in a horizontal position between the side sills, or substantially said combination.

584 All pursuant to the prayer of said bill of complaint.

THE UNITED STATES OF AMERICA, }
Southern District of Ohio, Western Division, } ss:

I, Benjamin R. Cowen, clerk of the circuit court of the United States within and for the division and district aforesaid, do hereby certify that the foregoing decree is truly taken and correctly copied from the journal of said court.

In testimony whereof I have hereunto set my hand and [SEAL.] affixed the seal of said court, at the city of Cincinnati, O., this 17th day of January, A. D. 1889.

B. R. COWEN, *Clerk.*
R. C. GEORGI, *Deputy.*

And afterwards, to wit, on the 18th day of January, A. D. 1889, the following oath of special master was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Oath of Special Master B. R. Cowen.

U. S. Circuit Court, S. D. O.

HENRY TIMKEN
vs. # 3853.
T. D. OLIN *et al.*

585 I, B. R. Cowen, having heretofore been appointed special master in the above-entitled cause, do solemnly swear that I will faithfully and impartially perform my duties as such master, agreeable to the order of the court, to the best of my ability and understanding, so help me God.

B. R. COWEN.

Sworn to before me and signed in my presence this 18th day of January, A. D. 1889.

[SEAL.] ROB'T C. GEORGI,
Deputy Clerk, U. S. Cir. Court, S. D. O.

And afterwards, to wit, on the 23rd day of January, A. D. 1889, came the marshal to whom the above injunction was in form directed and filed the same in the clerk's office of said court, with his proceedings had endorsed thereon in words and figures following, to wit:

Received this writ at Cincinnati, Ohio, on the 18th day of January, 1889, and on the 21st day of January, 1889, I served the within-named Thomas D. Olin and Edwin D. Olin, as appears by their acknowledgement of service herein endorsed.

Fees.

2 services	$4 00
Copy	2 00
1 mile	06
	$6 06

H. C. URNER, *U. S. Marshal.*
By RICHARD C. ROHNER, *Deputy.*

We acknowledge the service of this writ.

T. D. OLIN.
E. D. OLIN.

Jan. 4, '89.

586 And afterwards, to wit, on the 15th day of July, A. D. 1889, the following report of special master was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

The U. S. Circuit Court, Southern District of Ohio, Western Div.

HENRY TIMKEN
vs.
T. D. OLIN & Co.

Report of Special Master B. R. Cowen.

To the judges of the United States circuit court, southern district of Ohio:

The undersigned, appointed special master under an order entered herein January 18, 1889, to take and present to your court an account of the profits, gains, and advantages which have accrued to defendants, and the damages sustained by complainant by reason of infring-ment of patents of said complainant, the number of springs made by said defendants and the number sold by them, respectfully submits the following report:

Statement.

This is an action brought against T. D. Olin & E. D. Olin, partners doing business in the city of Cincinnati under the firm name of T. D. Olin & Co.; said firm so constituted began business in Cincinnati in February, 1884, prior to which date a firm of the same name and style did business at Terre Haute, Ind., but with other partners than the defendants herein.

Defendants having filed a statement showing the number of springs bought and sold by defendants from the date of their
587 commencing business in Cincinnati to the date of your injunction, which complainant accepts as correct only as to such numbers so made and bought and sold during the partnership of defendants in Cincinnati. Said statement of defendants shows that they have made and bought and sold springs as follows:

Received from predecessors in business....	276	setts.
Purchased.....	15,363¼	"
Total	15,639¼	"
On hand unsold.....	105	
Net amount purchased.....	15,534¼	"
Manufactured by defendants.....	5,609	"
Total amount purchased and mfcd...	21,143¼	
Of these defendants sold—		
Regular springs.....	17,011¼	
Combination springs.....	3,895	
Donated and replaced.....	237	
		21,143¼

But complainant claims that said Thomas D. Olin did prior to the date of the formation of the defendants' copartnership "make

or sell fifteen hundred (1,500) setts of said infringing springs, as the books show," and demands that the master add that number to the 21,143¼ sets above stated.

Complainant also claims the established license fee as the measure of the damages sustained by him by reason of said infringement of said defendants.

Defendants have made no statement of the profits accruing to them from their sale of springs, having kept no separate account of that branch of their business, which, in addition to the sale of springs, embraced a trade in buggies, buggy gears, and fifth wheels for buggies. The total profits from the whole business of defendants during the time of partnership *was* $1,560.41, which,
588 however, did not include some items of expense which they are entitled to allowance for if the damages are fixed at the amount of the actual profits. Defendants' counsel claims that the losses on the trade in springs absorbed the profits on the other branches of the business, but the account of defendants does not sustain that claim, nor is there any evidence before the master to sustain it. It is as fair to infer that losses on other branches of the business absorbed the profits on the sale of springs, but neither assumption is sustained by evidence.

Defendants had full legal notice of complainant's patent both by personal notification and by having the patented article duly marked, and that they were infringing the same, yet they continued to infringe after such notice.

Findings.

Defendants, during the existence of their copartnership under thy firm name of T. D. Olin & Co., received springs by purchase and manufacture.....		21,143¼ setts.
Of those there were sold.....	19,801¼	
And donated or replaced.....	231	
And there remains on hand unsold.....	105	
		21,143¼

II. The fifteen hundred (1,500) sets of springs purchased and sold by T. D. Olin and his then partners when the domicile of said copartnership was without this district and before the formation of the defendant copartnership, for which complainant claims damages, are not included in this action and are not therefore embraced in the accounting, excepting 276 sets received by defendants from their predecessors in business, which are included in this account.

III. Complainant claims his established license fee from defendants as the proper measure of damages to which he is en-
589 titled for the infringement of his patent herein. The decree of your court awards to complainant all the profits, gains, and advantages which the defendants or either of them have received or made or realized, or which have accrued to them or either of them from the infringement of either or all the patents aforesaid, and that in addition he recover of the defendants all damage sus-

tained by him by reason of the infringement or infringements aforesaid.

Had the decree been only for profits, gains, and advantages a further accounting would be necessary, but as it is also for damages sustained by complainant a different rule is adopted.

There was an established license fee for the use of the springs, as appears by complainant's testamony in the case, complainant having authorized twenty-two (22) dealers to sell his springs, beginning for the same in 1879 and continuing until the date of the decree herein. The fee so established was two ($2) dollars per set until January 1st, 1886, after which date it was one ($1) dollar per set.

Defendant disposed of springs by years as follows:

In 1883	1,809½ sets.	
" 1884	1,851¼ sets.	
" 1885	3,105¼ "	
" 1886	4,524¾	
" 1887	6,105	
" 1888	3,649	
" 1889	86	14,364¾ @ $1.
Total		$21,131¼

590 Assuming the license fee stated above as the proper measure of damages in this case the master finds that defendants are indebted to complainant as follows:

On 6,766½ sets of springs disposed of prior to January 1, 1886, at $2 each	$13,533
On 14,364¾ sets disposed of since January 1, 1886, at $1	14,364 75
Total amount due	27,897 75

The testimony taken by the master, the accounts filed by defendants, and other papers filed by counsel before the master are filed herewith.

All of which is respectfully submitted.

B. R. COWEN,
Special Master.

Cincinnati, O., July 15, 1889.

591

1883...	Donation..	138½	Regular..	1,671	Combination..	None
1884...	" ..	190¾	" ..	1,500	" ..	161
1885...	" ..	76¼	" ..	3,521¼	" ..	455
1886...	" ..	32½	" ..	4,791	" ..	1,171
1887...	" ..	68	" ..	2,784	" ..	1,246
1888...	" ..	94	" ..	.....	" ..	771
1889...	"		" ..	11	" ..	75
		600		16,852¼		3,879

Donation	600
Rigid gear	16,852¼
Combinat.	3,879
	21,331¼
Less donation	600
	20,731¼

592 Hon. B. K. Cowan, special master in Timken *vs.* Olin.

SIR: In compliance with order of reference, we submit the following statement:

The present firm of T. D. Olin & Co.—composed of T. D. & E. D. Olin—commenced business in Feb'y, 1884. The business was that of selling the Stickle spring, found to *on* an infringement. In addition to that, we also sold buggies, buggy gears, and 5th wheels for buggies. The total profit derived from the business up to the time of serving the injunction was $1,560.41.

In estimating these profits no charge has been made for salary or services of either party except for the year 1884. For that year T. D. Olin was allowed a salary. From the formation of the partnership up to the time the injunction was served T. D. Olin devoted his whole time & attention to the business. From Feb'y, 1884, until Aug., 1887, E. D. Olin devoted only a portion of his time to the business. Since Aug., 1887, E. D. Olin has given his entire
593 time & attention to the business, and neither party has been credited with any salary or compensation for services except as above mentioned.

It would be very difficult to state the am't of profits above named derived from the sale of the springs alone and the sale of the other articles mentioned, as all were merged together in the business. In estimating the profits no account has been taken of the cost of litigating this suit, as that has been paid & charged to the individual account of the partners.

The firm of T. D. Olin and Co. rec'd from their predecessors about 276 set of sp'gs and purchased from different spring manufacturers during the years 1884, 1885, 1886, & to Sept. 1st, 1887, 15,363¼ sets, of which we have 105 sets remaining on hand, which would make a total purchased & rec'd as follows:

From predecessors in business	276 sets.
Purchased	15,363¼ "
Total rec'd & purchased	15,639¼
Less No. on hand unsold	105
Leaving net purchase	15,534¼

In Sept., 1887, we commenced the manufacture of the
594 spring ourselves and made & sold 5,609 sets.

Summary, Total as Above.

Received from others	15,534¼	
Made by ourselves	5,609	
Grand total	21,143¼	sets.
Sold of regular springs	17,011¼	
" " comb. "	3,895	
Donated & replaced broken sp'gs	237	
Total sold, donated, & replaced	21,143¼	

In donation account we have included springs given for advertising purposes and springs given to replace broken & defective springs to purchasers to make good our warranty that all sp'gs should be perfect.

In putting our spring upon the market we furnished our customers, in addition to the spring plates, a set of 4 Brewster shackles, 8 brass bushings, 2 wooden spring bars, 8 bolts & nuts, 2 Norway iron clips & 4 nuts for same; 2 malleable-iron crabs or couplings.

The above are used on what we term the regular or rigid gear spring. Upon the comb. springs, in addition to the above, we
595 furnish for each set 1 pair of Brewster side bars, elliptic end or spur springs, & 4 pr. Norway iron clip & nut for same.

By reason of purchasing these ordinary and necessary articles in large quantities we have been enabled to purchase them at less rates than they could be bought by the carriage manuf'rs, & by mounting the springs ready for use, as was invariably our custom, we were enabled to do it at a less cost than the manuf'rs could, & therefore made a profit on this part of the business.

Resp'ct submitted.

T. D. OLIN & CO.,
Per E. D. OLIN.

(Made J. W. & C.)

THE UNITED STATES OF AMERICA, }
The Southern — of Ohio, } *ss:*

Edwin D. Olin, *who* being duly sworn, says that the above statement subscribed by him is true as he verily believes.

E. D. OLIN.

Sworn to before me and subscribed in my presence by the said Edwin D. Olin, at Cincinnati, O., this 29 day of March, A. D. 1889.

[SEAL.] ROB'T C. GEORGI,
Dep't Clk U. S. Cir. Ct., S. D. O.

596 U. S. Cir. Court, S. D. of Ohio, W. D.

HENRY TIMKIN *vs.* T. D. OLIN *et al.* } Equity. No. 3853.

The complainant disputes the pretended account filed by def'ts before the master. Therefore says it is incorrect, and does not disclose the full amount of profits, nor does it disclose the full number of springs made or sold by the defendants. He therefore calls for the books of the def'ts.

WM. M. ECCLES,
Att'y for Comp.

[Endorsed:] Equity. No. 3853. Henry Timken *vs.* T. D. Olin *et al.* Denial of account filed April 4, 1889. B. R. Cowan, spe'l master. Wm. M. Eccles.

597 U. S. C. Court, S. District, W. Division.

HENRY TIMKEN *vs.* T. D. OLIN *et al.* } Equity. No. 3853.

Before B. R. Cowen, master.

Now comes the complainant and prays the master to order the defendants to produce their books kept during the period of the infringement before the master, at his office in Cincinnati, Ohio, on or before the 15th day of April, 1889, including the order book, invoice book, ledger, and all other books kept by defendants or either of them during the period of infringement.

WM. M. ECCLES,
Att'y for Complainant.

April 3rd, 1889.

[Endorsed:] Equity. No. 3853. Henry Timken *vs.* T. D. Olin *et al.* Motion to produce books. Filed April 4, 1889. B. R. Cowan, spe'l master. Wm. Eccles, at'y for com.

598 And afterwards, to wit, on the 15th day of July, A. D. 1889, the following deposition was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN, Complainant,
vs.
T. D. OLIN *et al.*, Defendants. } # 3853.

Testimony Taken Before Special Master H. R. Cowen.

CINCINNATI, *April* 23, 1889.

Present: William M. Eccles, solicitor for complainant; George J. Murray, solicitor for defendant.

Question- by attorney for compl't.

T. D. OLIN, being duly sworn, deposes as follows:

Complainant's counsel, Mr. Eccles, asks the master to allow him to examine the books of the defendant now in his possession so as to enable him to examine the defendant Thos. D. Olin.

Counsel for defendant objects at this stage of the proceedings because as yet no question has been asked from the record which can be verified from the books.

Objection overruled by the master and the books produced.

599 Question- by the attorney for the complainant:

Q. What is your name?

A. T. D. Olin.

Q. Are you one of the defendants in this case?

A. Yes, sir.

Q. When did you first begin to manufacture the Olin spring? It was declared an infringement in the case of Timken against Olin.

The question is objected to unless limited to the time when the present firm of T. D. Olin & Co. commenced to manufacture the spring, and for the reason that the suit is against T. D. Olin and E. D. Olin, partners, as doing business as T. D. Olin & Co.

A. We commenced manufacturing the goods in 1887, in August.

By attorney for complainant:

Q. When did you first have them manufactured for you; was it not in the year of 1883, about April 2nd?

A. Yes, sir.

Q. Where was it at?

A. I think I had some goods manufactured in Cleveland; I was doing business at Terre Haute, Ind.

Q. Who made those goods for you?

Objected to by the attorney for defendants.

600 Reason first. That the infringement was not committed within the district, and thus the parties to this suit were not parties to the infringement.

Objection stands; it is not decided.

A. I think the first parties were the Forest City Spring Company.

Q. Of Cleveland, Ohio?

A. Yes, sir.

Counsel for complainant hands the witness a book, dated on the first page, Monday, Terra Haute, Ind., April 2nd, 1883, and asks him to state what it is.

A. It is a day book of sales—merchandise bought, expense—general journal.

Q. Look on the 2nd page and show me what 68 means opposite Emerson, Fisher & Co.

A. $68.

Q. What was that for?

A. I presume for springs.

Q. What kind of springs?

A. Olin springs for side-bar vehicles. I could not state certainly as there were other transactions of merchandise between Emerson Fisher and myself.

Q. Was that book kept for the firm of T. D. Olin, the defendant, T. D. Olin & Co., defendants in this suit?

A. Only one of the defendants in this suit.

601 Q. It records the transactions of that firm, does it not—of the defendant-, does it not?

Objected to as indefinite, unless the names of the defendant- are given.

A. There is only one of the defendants in this case.

Q. Was that book kept as a memorandum of the number of Olin springs sold by the firm during the time it was doing business?

A. That book was kept prior to the formation of the firm of T. D. & E. D. Olin, doing business under the firm name of T. D. Olin & Co., but still those goods were sold under the name of T. D. Olin & Co.

Q. Does not that book show all the Olin springs of which the firm of T. D. Olin & Co. manufactured or sold or has manufactured for them during the time the firm was in existence?

A. It does not.

Q. How much does it show?

A. It shows to May 13, 1884.

Q. What column of that book shows the number of springs manufactured for T. D. Olin & Co. and sold by T. D. Olin and Co.?

A. No column; simply entries of such and so many different style- of springs.

Q. Look at this, too, and show me what that book shows as the number of sets Olin springs sold to Emerson, Fisher & Co. April 2nd.

602 A. The book does not show the number of sets except in lead-pencil marks, which, knowing from price received for goods in making the accounting, was put in in lead-pencil marks.

Q. How could you tell *that* were 17 sets sold to Emerson Fisher & Co. of that date?

A. At the price I sold them at.

Q. What price did you sell them at?

A. $4.00.

Q. How long did you continue from that date to sell Olin springs at $4.00 a set to Emerson, Fisher & Co.?

A. I think for 1 year; then Mr. Timken reduced the price of his goods so that I had to reduce the price of the Olin. It might have been some few goods clear up until '86 or '7, but not in any quantity.

Q. Did you sell to all parties at the same rate of $4 a set during that time?

A. No, sir.

Q. Now, Mr. Olin, what other item of merchandize enters into this account of Emerson Fisher & Co., just referred to on page 2?

A. Nothing that I can see.

Q. Then the $68 is entirely for springs?

A. I think so.

603 Q. Is that the only way that you have arrived at the number of sets of Olin springs sold by the firm of *of* T. D. Olin & Co., or have you other books which will determine more definitely the number?

A. In looking over this book you have evidently picked out almost the only entries there is of the number of springs left off. If you will examine the other pages right along through you will find the number of sets of springs given in every instant.

Q. Did you help E. D. Olin or your attorney to make out the account of the number of sets of springs manufactured or sold by the firm of T. D. Olin & Co.?

A. That accounting was made first by E. D. Olin and myself at the factory; afterwards gone over again at my house, and afterwards verified by Mr. Murray, I think, and E. D. Olin.

Q. In your presence?

A. No, sir. I will explain why. I had gone over them carefully with my brother, E. D. We went to Mr. Murray's office afterwards. Then the master asked for the accounting. I was busy with the firm of Hiram W. Davis & Co. and could not very well get away at that time, and as I also—or the firm, rather, had been dissolved prior to this, not to the looking over of this account—I was in other business.

604 Q. Look at the account of Emerson Fisher & Co., April 16. What does that S. C. mean?

A. Sickel's combination.

Q. S. C., then, in the book—in that book—means Sickel combination, which was the Olin spring?

A. Yes, sir.

Q. The Olin spring- sold by you prior to the partnership of T. D. Olin & Co. were principally sold to Emerson Fisher & Co., were they not?

A. Yes, sir; I think they were.

Q. Can you tell me from that book or other books before the master how many springs you had made for yourself or your partner and sold prior to the date of partnership of T. D. Olin & Co.? I mean of Olin springs.

Counsel for defendants objects to the above question as being incompetent, irrelevant, and immaterial.

A. Between 1,500 and 1,600 springs—couldn't say definitely without going over the books—prior to this partnership of T. D. Olin and E. D. Olin.

Counsel for the complainants hands the witness a memorandum; asks him to look at it and state whether he assisted in making out that memorandum from the books of T. D. Olin & Co.

A. I think this is the statement of sales through the year was made at my house. The statement of profits and loss was made out by E. D. Olin from the books, but not in my presence.

605 The complainant's counsel asks the master to mark the paper just referred to and hand it to the witness as Complainant's Exhibit Memorandum of Number of Springs Sold by T. D. Olin & Co.

Q. How is that memorandum made out?

A. This memorandum was taken from the journal and journal sales book, which gave the donation sales of regular and Olin combination springs. This also, I think, includes that you have in your hand and which I am now being examined upon.

Q. What was this account made out for?

A. This account was made out, I think, at the request of Mr. Eccles, and afterwards we found that he wanted to copy the names of our customers from books and would not accept this accounting.

Q. What does the 1,671 sets represent there?

A. The sales of 1883.

Q. Up to what date, January 1, 1884?

A. Yes, sir.

Q. Will you look at page 40 of this book and tell me whether the charge there to Emerson, Fisher & Co. is for springs, Olin springs?

A. It says so; 6 sets of No. 4.

Q. Did you sell him 6 sets at that time?

A. Yes, sir; whether this charge was for springs to replace broken springs, which were always charged and afterwards springs were returned, received credit for, is something I cannot tell.

606 Q. Is that six sets included in this accounting filed here before the master?

A. Yes, sir; I should say so.

Q. What makes you answer that way, Mr. Olin; are you not positive one way or the other?

A. I am positive as near as any man could be in going over books; he may go over the same as in a trial balance 20 times and

still not find his error, but we stand ready to verify an accounting in each year the same as is put down on these figures.

Q. Then this accounting was not taken from this book?

A. Hardly.

Q. When you went over these books didn't you check the springs which you accounted or the charges which you accounted in writing?

A. Not necessarily in that book; that may have been used for a day book and afterward journalized and posted from the journal.

Q. Why was this used as a day book and afterward journalized?

A. Part of it; yes, sir.

Q. What part of it?

A. I think from January, 1884.

—. This last item I just called your attention to of Emerson Fisher and Co. you determined that there are six sets, from the fact that there is a charge of $24 and from that fact alone only, do you not?

607 A. No, sir; there is an entry right below of six sets of springs at $4 per set.

Q. How does it come, Mr. Olin, that Emerson Fisher & Co. dropped off in their purchases so rapidly after the firm of T. D. Olin was formed?

A. Some time in 1884 Mr. Timken came here to Cincinnati, employed deputy marshal to deliver notices to Emerson Fisher and carriagemen in the city of Cincinnati that they were infringing his patent No. so-and-so. They immediately came to me to know if Mr. Timken had entered suit, as the marshal had delivered notices to them. That same year he also hired sheriff to deliver notices; he also sent registered letters through the mail. — is why the trade *that* dropped of so rapidly; and further reasons also; other cross-springs were sold far under prices that I could not buy my springs for.

Q. When did the Catell Spring Company first begin to manufacture springs, the Olin spring, for the defendant- in this case?

A. I think in '73—'83; it was after I had tried to buy some springs where I first had them made. Forest City Spring Company of Cleveland received notice of Mr. Timken not to manufacture any more Olin springs. I had to find other parties to manufacture.

608 Q. Did the Forest City Spring Company ever manufacture any springs, Olin springs, for T. D. Olin & Co. after the 1st of January, 1884?

A. Yes, sir; to replace some broken ones, but I think for nothing else.

Q. All they manufactured, then, for T. D. Olin & Co. subsequent to January 1, 1884, was simply to replace broken ones before manufactured by them?

A. I think so.

Q. Who else manufactured Olin springs for you or for your partner prior to Jan. 1st, 1884, except the Forest City Spring Co. of Cleveland?

A. I think Smith, Sutton & Co., of Pittsburgh.

Q. Did anybody else?

A. I believe the Spring Perch Co. of Bridgeport made ½ doz. sets, I think, which I sold for about $2 less than what they cost.

Q. What did you do that for?

A. Because they were made of Swede steel and were too expensive for anybody to use and get the price.

Q. How many sets did Smith, Sutton & Co. manufacture prior to January, 1884?

A. I couldn't say.

Q. Can you by referring to your order book or your journal or your day book?

A. I could not, but I think about 100 or 150 sets.

Q. How many did the Forest City Spring Co. make prior
609 to that time, January, 1884?

A. 100 sets, I think, to the best of my recollection; *they* may have been more, but would not after receiving the notice from Timken.

Q. How many did the Tuthill Co. manufacture prior to that time?

A. I couldn't say.

Q. Couldn't you determine from your books?

A. If I had the bills I could.

Q. They must have manufactured the balance of the 1,600 sets, didn't they?

A. No, sir; I think not.

Q. Who else made springs for you prior to that date?

A. The Cleveland Spring Co. made some; they also received notice from Henry Timken.

Q. How many did they make prior to that time?

A. I couldn't tell without their bills.

Q. Can't you tell from the book?

A. It only gives the amount.

Q. How much did you pay them prior to Jan. 1, 1884, for Olin springs?

A. I think that the Cleveland Spring folks made only 25 or 30 set- of springs, as their prices were too high to allow any profit to compete with other cross-springs.

Q. What did they charge?

A. $3.50, I think; either $3.50 or $3.25.

610 Q. Who else manufactured springs prior to that date?

A. The Canton folks, I think, made a half dozen sets.

Q. Who else?

A. Tuthill made some.

Q. Do you mean the Tuthill Spring Co.?

A. Yes, sir.

Q. How many did they make prior to that date?

A. I couldn't say. I think prior to Jan. 1, 1884, they made probably a couple of hundred sets.

Adjourned until 2 o'clock this p. m.

2 O'CLOCK P. M.

Same parties present as this morning.

T. D. OLIN continues:

—. Did any party prior to Jan. 1, 1884, manufacture springs for you except the parties named heretofore in this deposition?

A. I think not.

Q. Can't you then from your ledger or from your books determine how many Olin springs were manufactured prior to that by the Tuthill Spring Co. for you?

A. Not without reference to the bills—bill book.

Q. Have you got the bill book here?

A. No, sir.

Q. Where is it?

A. I couldn't say; I suppose it is at the factory, though I should have said without the invoice book instead of the bill book.

611 Q. Take that invoice book and see if you can tell me how many springs they manufactured prior to 1884. Can you tell the number of springs from the amount you paid Tuthill & Company prior to that date?

A. I guess I can get it right here.

Q. Have you the invoice bill of the Tuthill Spring Company for 1884?

A. Yes, sir.

Q. Will you give us the number of springs they manufactured for the Olin Spring Company in 1884?

A. I find Tuthill made some springs in 1884.

Q. Will you refer to your book and tell me how many Olin springs Tuthill Spring Company made for you in 1884?

A. 1,343 from the Tuthill Spring Company in 1884. In addition to that they are of incorrected invoice 240½.

Q. How many springs did the Kalamazoo Spring Company make for the defendant- in the year 1884?

A. I find no bill from the Kalamazoo Spring Co. in the year 1884.

Q. Do you know, from your personal knowledge, whether they made any springs for the defendant- in the year 1884?

A. I think not.

Q. What other spring company or spring manufacturer made the Olin spring for the defendant- in the — 1884?

612 A. I think the Tuthill Company made all the goods that we had that year.

Q. How many springs did the Tuthill Spring Co. make for the defendant- in the year 1885?

A. I could not tell without examination.

Q. Please examine and tell me.

A. 1,410.

Adjourned until tomorrow morning at 10 o'clock.

WEDNESDAY, *April 24th*, 1889.

Same parties present as on yesterday.

The examination of Mr. T. D. OLIN continues:

From that number, instead of 146 set-, it should be 41 set- that come from that 146 section; that should be 164 instead of 146 section.

Q. That 164 you speak of is not to be taken *unto* this concertation.

A. The 41 sets explains where the 164 section — in the bill.

Q. Then this 41 has got to be added to this 1,410 if the omission is made?

A. Yes, sir; I think myself that it is omitted in the footing.

Q. That would make, then, adding the 41 sets in, 1,451?

A. Yes. sir.

613 Q. Now look at your bills and books and tell me how many springs were made for defendants—I mean Olin springs—by the Tuthill Spring Company during the year 1886?

A. 198 sets.

Q. How many Olin springs did the Tuthill Spring Co. manufacture for the defendant in the year 1887?

A. 441.

Q. Did they make any for you in 1888?

A. No, sir.

Q. Who else made springs for the defendant in the year 1885?

A. I can't tell you, Mr. Eccles. Tuthill made some; I don't know whether the Kalamazoo made any or whether Detroit until I would go over the books.

Q. Please look at the bills for 1884 and tell me how many springs the Kalamazoo Spring Company made for the defendant in 1885.

A. 1,184 regular, 362 combination, in the year 1885.

Q. How many did the same spring company make for the defendant in the year 1886?

A. In 1886 I find 345 regular, 320 combination, from the Kalamazoo Spring Company. In 1887 I find bills for 7 and ½ sets of combination.

Q. What other spring company or spring manufacturer made the Olin spring for the defendant in the year 1885?

A. Cincinnati Spring Co. made 499 sets in 1885.

614 Q. How many did the Detroit steel and spring works make for the defendants in 1886?

A. 2,488 regular and 151 combination.

Q. How many did they make in 1887?

A. 4,208 regular and no combination.

Q. How many did the Queen City Spring Company make in 1887 or any other year for the defendant?

A. 342 and ½ sets of combination.

Q. How many springs in all did Glenn and Lee, of Syracuse, N. Y., ever manufacture for the defendant?

A. 103 set- in 1884 and none at any other time.

Q. How much did you pay per set for springs in 1884?

A. In 1884 we paid $2.50 for No. 4 regulars; for some we paid $2.70 per set; for some we paid $2.60, $2.75, and $3.25.

Q. What proportion of the spring did you pay $2.50 a set for?

A. A very small proportion.

Q. What proportion of springs did you pay $2.70 and $2.75 for?

A. I suppose over one-half of them, and probably one-third or more at $3.25. I am speaking now of the ordinary sizes—No. 4.

Q. What did you pay for springs in 1885?

A. We paid from $2.00 to $2.75.

Q. What did you pay for springs in 1886?

A. We paid from $1.90 to $2.35 per set. All these prices
615 refer to No. 4 regular. As a bid extra sizes were more in proportion.

Q. What did you pay for springs in 1886?

A. They were about the same thing in '85 as in '86.

Q. What did you pay for springs in 1887?

A. The prices were about the same.

Q. Have you sold any other kinds of springs than the Olin spring since the firm was organized up to the date that you commenced to manufacture?

A. Yes, sir.

Q. What kind of springs?

A. Elliptic, platform, coach, tire springs, and cart springs.

Q. When did the firm of E. D. Olin and Company commence manufacturing springs at Portsmouth?

A. In August or September, 1887. I think our lease dated from August 1st.

Q. Have you had any Olin springs made by other parties since that date for you?

A. No, sir.

Q. What did you sell # 4 regular for in 1884?

A. $4.00 in quantities, and sometimes we would receive $5 for them.

Q. How much for the combination?

A. I don't think in '84 we sold very few combination, except as what were mounted on side bars in combination with spar springs.

616 Adjourned until 2 o'clock p. m.

Q. I believe you stated that you helped make out this account, marked Complainant's Exhibit. What was that made out from?

A. Just what it represents, amount of springs sold.

Q. What was it taken from, what book?

A. Sales book and journal day book, on which all sales were recorded.

Q. Did that represent the correct number of Olin springs sold by the defendant as shown by this sales book?

A. Yes, sir; we were very particular in putting every thing, combination, regular, donation, everything that went out, and for what purpose. I verified it as we went along and my brother did the same.

Q. Will you look at the ledger and tell me how many Olin

springs the Connersville Carriage Company—Buggy Co.—bought of the defendant, of Olin spring-, during the years of 1884, '85, '86, '87, '88, and '89, up to the date of the injunction, and how much they paid per set?

A. We received an average of about $4 a set.

Q. How many did they buy?

A. I suppose they bought about 250 or 300 sets. They bought until Mr. Hess came in and offered goods for $3.25. Part of
617 that was trade for buggies from the Connersville Buggy Co. We took quite a good many buggies from them—wagons.

Q. During the time you were in business who was your heaviest purchaser?

A. I guess Emerson, Fisher bought as many and more than any one firm.

Q. Will you turn to Emerson, Fisher's account and tell me how many they bought during the time you were in business?

—. Who were the heaviest purchasers after you went into partnership?

A. I guess McFarland Carriage Co. was about as heavy as any one we had.

Q. Will you turn to their account and tell me how many they purchased of you?

A. They purchased close to 3,000 set- is about as near as I can go without looking at their account.

Q. Can't you tell from the sales book?

A. Yes, by going over each item from the time they started in business; but that won't miss it, 300 sets either way.

Q. Is that McFarland, of Connersville?

A. Yes, sir.

Q. How much did they pay on an average per set for these springs?

A. The average on those would be about $2.65.

Q. What year did they purchase them in, or years?

A. In 1886 and 1887.

618 Q. Who is the next heaviest purchaser?

A. Well, I guess Davis was the next: Hiram W. Davis & Co.

Q. Will you turn to their account and let me know about how many they purchased, as near as you can get at it?

A. I can give it just as well without going to the account; as near. The probably purchased about 2,000 sets all together.

Q. What year did they purchase those?

A. In 1886 and 1887.

Q. What did they pay on an average for those springs?

A. About $3.55.

Q. Who was the next heaviest purchaser?

A. I guess the Michigan Buggy Company were the next.

Q. About how many did they purchase during the time and what did they pay for them?

A. I suppose 1,000 sets would cover them.

Q. What book will show the number of sets that these parties bought?

A. Day book, journal day book, bill book, and ledger; the ledger shows the amount of each. The Michigan Buggy Co. is at Kalamazoo.

Q. Who was the next heaviest purchaser?

A. I guess Fish Brothers, of Racine, Wis.

Q. Who was the next heaviest?

A. Well, the rest is cut up; Wolf has bought combination—
619 Wolf & Company; Enger has bought some, of Cincinnati; Geo. Scofield, of Indianapolis, and Butler, of Marion, Ind.; Union City Carriage Manufacturing Co.; then there is Brockaway, of Homer, N. Y., W. N. Borckaway, and the A. K. Huston Manufacturing Co. of Rochester, N. Y.; R. C. Dilinghast, of Portland, N. Y., and the Cortland Wagon Co., of the same place; Dennis & Rimes, of Amesbury, Mass.; Riddle and Smart, R. S. Briggs & Co., M. H. Folger, C. M. Bennett, Geo. Martin, all of Amesbury, Mass.; McCrellet & Son, Manchester, N. H.; W. B. Walker, Dover, N. H.; D. S. Kimball, of Kingston, N. H.; Chas. Gunnison, Merrimac, Mass.; A. H. Randaldt, at Dover; then there is any quantity of little ones, as Marcey & Co., Chas. Albright, Carpenter Bros., of Cincinnati; Knoblaugh, of Cincinnati; R. B. Ward & Co.; these are wholesale men, not manufacturers, the two last named—the R. B. Ward; might say also that Wolf and Co. are not manufacturers; they are dealers only; the Varney Carriage Co.; Eastman, Clark, of Cincinnati; they also bought some; James & Meyer, The American Carriage Co., John Auel, the Enger Buggy Co., Anderson & Harris, Grieve Bros., at Atlanta, Ga.; there were Garvis & Robertson, the Buffalo Spring and Gear Co., Buffalo, N. Y.; Clark & Co., Cleveland, O.; Cray & Rood, of Toledo; they are jobbers;
620 W. H. Bowe & Co., Cincinnati, mostly combination; Worth & Co., also mostly bought combination; Chas. Albright, Cincinnati; Kemper Bros., Cincinnati; Neave & Co.; all Cincinnati jobbers; Bacon Corbett, of St. Louis, jobbers; Fulton Conway & Co., jobbers, Louisville; Ten Eyk & Teft, of New York city.

Q. Can you tell me about how many Wolf & Co., dealers of Cinnati, bought and what they paid?

A. I suppose they have bought probably 2,000 sets of combination springs mounted on side bars, with spar spring. The most of them have been sold at $4.85 per set.

Q. Can you tell me how many Geo. Enger, of Cincinnati, bought, and what he paid for them?

A. He paid $2.50 and $2.75 for 500 sets. I suppose he used about that amount.

Q. Can you tell me about how many Geo. Scofiled, of Indianapolis, had used (Spivens & Scofiled or Simmons)?

A. I supposed he used probably 1,500 sets.

Q. How many before 1884?

A. Not any, direct. That was made through a wholesale firm.

Q. What firm?

A. They are out of business now. The name was Anthoney, but now the Van Kamp Hardware Co.

Q. About how many sets did that amount to?

A. My contract with him at that time was 500 sets, and I think they took them all.

621 Q. Do you know what price they paid for the 1,500 sets they got of you?

A. I don't thing we have sold over 1,000 sets the indirect; that was Simmons.

Q. Did you sell them anything but springs, Simmons and Scofiled?

A. Yes, sir.

Q. What does the springs account amount to, the total?

A. I can't determine without going clear through the account just the number of springs or the amount received for them, as there was trade of gears, buckboard, buckboard bodies, piano-box bodies, and perches ironed up that went into his buggies.

Q. About how many did Thad. Butler, of Marion, Indiana, use?

A. I suppose probably 250 sets.

Q. Look at the Union City Carriage Co.'s account and see about how many they bought of you.

A. About 800 sets.

Q. About how many did Brockaway buy?

A. About 350 sets

Q. About how many did A. K. Huston Manf. Co. buy?

A. About 25 sets, and to R. C. Dillinghast about 300.

Q. About how many to the Hiscock Manufacturing Co. of Cortland, N. Y.?

A. Probably 20° sets of combination.

622 Q. How many to the Cortland Wagon Co.?

—. 1 set, and they didn't pay us for that.

Q. How many did Dennis & Rimes buy of you?

A. I suppose 30 sets, probably 25 to 30 sets, and half of those were combination.

Q. How many to Biddle and Swartz?

A. 50 sets.

Q. How many to R. S. Briggs & Co.?

A. About the same as the last, the combinations and all.

Q. M. A. Crizier, how many?

A. He bought one or two sets.

Q. How many to C. M. Dennis?

A. A couple of sets.

Q. How many to Geo. Martin?

A. Probably 15 or 16 sets.

Q. How many to McCrellis & Son?

A. 3 sets.

Q. How many to W. B. Walker?

A. I think 10 sets.

Q. How many to Charles Dennis?

A. He got mostly heavy springs; I think he got 8 or 10 sets.

Q. How many to D. S. Kimball?

A. I suppose 50 sets.

Q. To Geo. Gunham?

A. I don't think he ever bought but 2 sets of springs, and I think he returned those.

623 Q. How many to J. H. Randelett?

A. 25 sets combination.

Q. How many to Marshal & Co., Marcey & Co.?

A. I suppose, in trade and all, 50 or 60 sets.

Q. How many to Knoblaugh?

A. The A. L. Knoblaugh Company probably bought 8 or 10 sets, some combinations and some regulars.

Q. How many to R. B. Ward?

A. Not a great many and not much to Kemp. I don't think either one of them would exceed 50, and I don't think they bought that many. That refers to R. D. Ward & Co. and Kemper, either one.

Q. Did the Globe Carriage Co. ever buy any?

A. Yes, sir; a few.

Q. How many?

A. I guess about 100 sets.

Q. Did the Anchor Buggy Co. ever buy any?

A. Yes, sir; I gave you the Anchor Buggy Co.

Q. Look at Emerson, Fisher & Co.'s account since 1884, Jan'y 1st; see if you can give how many they have bought since that time.

A. 175 sets since 1884; that includes what was charged to them and afterwards credited for breakage and all.

Q. The amount of these sales which you have spoken of amount to about ten thousand two hundred and ten sets. To whom

624 did you sell the balance of the twenty-one thousand sets?

A. As I stated before, there were a great many customers and a great many wholesale dealers that, without going over the books item by item, it would be a very hard matter to give the sales of the balance of the twenty-one thousand sets.

Q. Take the ledger there and tell me how many customers you sold springs to, all told, during the time you were in partnership—the number.

A. ——.

Q. How long have you been selling springs to McFarland and Co.?

A. I think I sold McFarland, probably, 4 or 5 set of springs, but most of the business has been done in 1886 and 1887.

Q. Will you look at Journal A, p. 44, and tell me how much you sold #4 springs for to the different parties on that page?

A. The Emerson and Fisher Co., 2 sets of #4, $4.00, to replace broken; Geo. W. Miller, one set of combination springs, the dealer that I don't think has ever bought one since then or any amount of any kind of springs; one set of combination, mounted on

625 side bars, $6.50; the Michigan Manufacturing Co., 10 set- of No. 4, $5.00; Daniel Frost, Danville, Ill., 12 set- of combination, mounted on side bars, $6, that include spar springs, Norway clip, and 2 side bars and screws; Wolf and Co., 25 sets of combina-

tion, mounted on side bars—these are also hand scrolled—$5, including Norway clips, spring bars, and all; Wayne & Anderson, of Decatur, Ill., 2 sets of #4, $7.50; these were made with an extra wide crab in the centre for cart; Emerson, Fisher & Co., here is some more at $4; F. M. Simmons, some more at $5; Keys Man'f'g Co., of Terre Haute, Ind., that was partly in trade also, $6 or $5.50 6 sets.

Q. Is there anything in that book that would indicate that they were combination springs mounted on side bars?

A. Yes, sir.

Q. What is it?

A. All combinations were mounted on side bars sold to those parties. No. not indicated on the book; there is nothing on this book to indicate that, but I remember it from the trade. Later you will find numbers, after we had changed our catalogue, calling No. 8 from No. 13, instead of combination; maybe not in that book, but in some of the others.

626 Q. Will you look at the bottom of that page and tell me what Dillinghast that is?

A. That is R. C. Dillinghast, of Cortland, N. Y.

Q. How many springs does that show purchased?

A. Nothing.

Q. What is that account?

A. 60 days; that's bills receivable.

A. K. Huston, 60 days from 7–17th, '84	$100 00
R. C. Dillinghast, 60 days from 7–17th, '84	195 00

Wagon account and Howe Machine Co.

60 days	$362 50
90 days	362 50
Total	$725 00

Making entry, bills receivable to sundries, ten hundred and twenty dollars.

Q. What were the bills receivable from the Howe Machine Company for?

A. Wagons; it says wagon account here and Howe Machine Co.

Q. Not for springs?

A. No, sir.

Q. Did you ever sell them any Olin springs?

A. No, sir.

Q. Did you ever sell the Maline Buggy Co. any Olin springs?

A. Yes; 2 or 3 sets. They returned them.

627 Q. What does this red mark indicate? The Olin springs red check-mark?

A. I don't know what they are—some of the book-keeper's checkings; my checks are in pencil marks and rechecked.

Q. What does the — and pencil marks mean in this book?

A. Checking over the Olin springs.

Q. How much did you draw out, not for expenses but for your own personal account, during 1884?

A. I can't tell.

Q. Can you tell me how you—what you drew out on personal account in the year 1884?

A. No, sir; I cannot.

Q. Can you tell me what the books show your personal account drawn out in 1884?

A. Over and above the expense of my personal account $650.90 for 1884.

Q. How much are you charged with and how much are you credited with for expenses in that year?

A. I am charged with $3,236.54 and credited with $2,585.64.

A. In this year of 1884, the item of $2,585.64, there is an item of $1,200, which is salary for that year, balance of expense.

Q. That was your salary?

A. Yes, sir.

628 Q. Was that twelve hundred and odd dollars salary charged to expense account in estimating the profit and loss account of running this Olin spring filed here in court?

A. Yes, sir; that was charged into expense account, and it was the only year ever any salary was allowed for my services.

Q. Did E. D. Olin draw any money out on personal account during 1884?

A. He may have drawn some money on personal account, but did not receive any salary or anything in that way to be charged up to expense E. D. Olin used in personal account, and the reason his name appears in the personal account there — came into the business and was to put in so much money, and as he done the banking business it all appears there, mostly the credit and charges to him and under his name in that way in the personal account.

Q. On page 80, Journal A, I see he is charged with $471.31. Was that charged in in estimating the profit and loss in this account filed as expenses of the business?

A. No, sir; all of that profit and loss is charged up to personal account in the profit and loss account, but charged personally to each one also.

Q. It was accounted as loss, wasn't it, running the business?

A. Yes, sir.

629 Q. There is an item on that page of ten thousand some odd dollars for patent. What was that for?

A. That was for the patent of this spring, the Sickel patent.

Q. That was counted in in estimating this profit and loss account as expenses of the business, wasn't it?

A. No, sir; it was not.

Q. Why was it put under the heading of profit and loss?

A. Just to close the account out; it simply represented nothing; you couldn't call it an asset nor a liability; it was merely to get it off the books.

Q. What was it put in the books at all for?

A. Well, in the first place, I first bought the patent out, it repre-

sented so much money, and afterward I sold to a third party, and it represented so much to the 3rd party; after it became the property of my brother and myself it neither represented nothing, unless it was carried through, you might say, and proved something; as it stood there it proved nothing; not seventy-five hundred dollars nor seventy-five hundred cents.

Q. What is the twelve thousand six hundred and forty-two dollars on the debtor column on that page composed of?

A. Profit and loss item.

630 Q. Give the profit and loss items which compose that twelve thousand and some odd dollars.

A. Profit and loss to sundries—

Expense	$3,448 38
Freight and dray	230 16
Interest and discount	310 51
Traveling expenses	924 23
Postage and advertising	128 79
Donation	94 96
Patent	7,057 02
Advertising	448 54
Making a total	$12,642 59

closing entries of the year on profit and loss, the year 1884.

Q. That seven thousand dollars, then, was carried in as part of the loss?

A. No, sir.

Q. Was it carried over as a part of the loss on the debtor column—part of the twelve-thousand-dollar item?

A. That was done merely to close out the patent account.

Q. Well, it helped to balance the account, did it not?

A. To explain this entry the profit account has received credit for the seven thousand five hundred dollars, which was also closed in the profit and loss; this also wipes out the profit account and the patent account both.

Q. On page 112 of Journal A, I see that there is a personal *answer*; that's E. D. Olin's personal ac.?

631 A. That's E. D. Olin's personal account.

Q. How much is it?

A. That is a personal account of all the ledger accounts during the month — April 30, 1885.

Q. Page 126. What is the personal account there; what's the amount of it?

A. $2,582.74.

Q. For what month is that?

A. For the month of May. This is all carried along for the whole month of May, 1885.

Q. Look at page 140. What is the amount of the personal account there?

A. $34.33.

Q. What month was that?

A. For the month of June, 1885.

Q. Look at page 152. What is the amount of the personal account there?

A. $2,906.74.

Q. What month is that?

A. July, 1885.

Q. Look at the summary for August.

A. Forty-five hundred and fifty-one dollars and six cents.

Q. That's the personal account?

A. Yes, sir.

Q. Page 65, Aug. 31, 1885.

Q. Now, turn to September, 1885, the summary of that month. Tell us what the personal account is there.

632 A. It isn't summarized in that month.

Q. Is there a personal account there for that month?

A. No, sir; no summary of personal.

Q. Is there any footing of personal account for that month?

A. Yes, there is to-; here is a summary.

Q. How much is the personal account there?

A. $1,868.23.

Q. Look at the summary for October.

A. $1,237. October 31, 1885, should say $1,200.37.

Q. Turn to the summary for November.

A. $380.08.

Q. December.

A. $5,455.23. This book and these totals are simply journal entries of all ledger personal accounts of parties we were dealing with and of all persons that appear on our ledger, not as individuals or partners, or rather what money either of the partners drew out of the concern, but simply a personal entry of each ledger entrie and figuring of the book-keeper to find whether his ledger is correct or not—ledger entries are correct or not.

Q. How much did you draw out as personal account in the year 1885?

A. $1,247.44 for 1885.

Q. What does that personal account in 1884 represent?

A. From which, from the journal?

633 Q. Yes.

A. I told you all of our customers had personal accounts on our books—with each individual. I'll give you an item here: The Connersville Buggy Company, W. L. Jarvis, H. H. Wise, buggy and a set of harness; J. Folger, set of #4 springs.

Q. How much did E. D. Olin draw out in 1885?

A. I don't know.

Q. Won't your ledger show it?

A. Well, the ledger will show it, but at the same time it might give entries down here, but not in cash. All of the money passes through his name—the banking business.

Q. Of course, he would be charged with what he drew out?

A. Certainly he would, but unless you had those items you couldn't very well get at what was his personal.

Adjourned until tomorrow morning at 10 o'clock.

THURSDAY MORNING, *April* 25, 1889.

Same parties present as on yesterday.

Testimony of T. D. OLIN continued:

Q. Can you tell me about how many sets of Olin springs you sold to Eastman and Clarke during your partnership?

A. Now, I should judge between 50 and 100 sets.

Q. When did you first commence selling to them?

A. I think it was in '85 or '86.

634 Q. Can you tell by looking at the books?

A. I think so. Yes, sir; I find *in* December 1, 1884, 3 sets of springs. That is the first sale.

Q. Is there account footed up there?

A. Yes, sir.

Q. How much is the sum total of their sales during the time you did business with them?

A. I would say in regard to this firm we bought a great many of spare wheels—some buggies—so that the account would show the actual amount on springs without going through the items.

Q. I just asked you for the gross amount of sales.

A. There would be about 45 sets of springs.

Q. How much is the gross amount of sales?

A. $186.07.

Q. James and Meyers, how many springs did you sell them altogether?

A. About 150 sets.

Q. How much did you sell them for?

A. $2.75, regulars.

Q. What is the gross amount of sales of all merchandize to them during the time you were dealing with them?

A. $1,340. That includes the elliptic, coach, platform—that is, the general line of springs.

635 Q. How did you come to be selling at that time a general line of springs—carriage merchandize?

A. James and Meyers are a new firm; started about 3 years ago—say 2 years ago. They went into business in the fall, and we went into business the next summer, manufacturing.

Q. The American Carriage Co. amounted to how much, how many sets?

A. I don't believe we ever delivered any to the American Carriage Company?

Q. Did you sell them any?

A. I think we had an order or a contract for some.

Q. How many did you sell, all told, to John Auel?

A. I sold him about 2,000 sets, but delivered about six sets, I think; not to exceed that.

Q. How many did you sell and deliver to the Anchor Buggy Company?

A. We have delivered about 20 or 25 sets, but think I have a contract for 500 sets.

Q. How many to Anderson and Harris?

A. I suppose we have sold Anderson and Harris a couple hundred sets.

Q. How much did you get a set for those you sold to Anderson and Harris?

A. I think $4 in the way of buggies and about $5 to $10 above the wholesale price in trade. I know for the reason the customers we sold to Anderson and Harris offered them goods in one
636 instant at $10 less money.

Q. Grieve Brothers?

A. I suppose 2 or 3 sets; very small dealers here.

Q. When did you make the first sale to Anderson and Harris?

A. In 1884, I think. We haven't sold them since the cushion and automatic springs came in to amount to anything on account of the price.

Q. How many did you sell to Jarvis and Robertson, of Atlanta?

A. About 250 sets. There were not delivered over 106 sets, maybe a little over, on account of br-akeage from the Tuthill Spring Co.

Q. What did you get for them?

A. We got $4 for them. They were a heavier spring than our regular.

Q. How many to the Buffalo Spring Gear Co.?

A. 25 sets, I think.

Q. How much did you get for them?

A. $3.50, $3.25, and $3.

Q. Clark and Co., of Cleveland?

A. About 5 or 6 sets.

Q. How much did you sell them for?

A. I think those were combination. $3.25 and $3.50—that is, with spar spring complete.

Q. Cray and Roode, of Toledo?

637 A. I think Cray and Roode got about 50 sets. We have an unfilled contract with them for probably over 1,000 sets.

Q. How many did you sell to William H. Bowe & Co.?

A. I suppose 150 sets, regulars and combinations.

Q. How many to Charles Albright?

—. About the same amount to him—150.

Q. Kemper Brothers?

A. To Kemper Brothers a very few; I suppose 10 or 12 sets.

Q. How many to Neave & Co.?

A. I think Neave and Co. bought 6 sets.

Q. How many to Bacon Corbett, St. Louis?

A. I couldn't tell those, because they ordered indirect; not a great many.

Q. How many to Fulton, Conway Co., jobbers?

A. I suppose they bought 25 sets.

Q. How many to Ten Eyk and Teft, of New York?

A. 3 or 4 sets.

Q. Now, Mr. Olin, can you tell me by referring to those books how much money E. D. Olin drew out of the firm or approximate that amount, individually, during the period of your partnership? Didn't you make a statement from the books of the number of

springs that the firm had sold to different customers during the partnership with your brother within the last six weeks and make a memorandum of it?

638 A. I didn't make from the number sold to each individual, but we took from the books—from the sales book—bill book—of the number that had been sold to anybody and everybody only in footing, but not from names of customers sold to.

Q. Have you seen a statement of that kind in the hands of your brother showing the number to each individual?

A. No, sir; I have not.

Q. In making up this statement which he gave to me & which you have identified here, and in making up the statement of account which you have filed here, how did you arrive at the number of springs manufactured by your firm at Portsmouth?

A. 1st, we took our bill book, where all bills and merchandise sold, of whatever name and nature, is copied. We take that bill, getting the different styles of springs, putting it down, and footing it up, then taking the number of sales or purchases, rather, from each spring party that we have bought springs from, and took the difference between the sales and purchases to get the amount that we had manufactured, counting nothing or taking any inventory on the stock.

Q. In estimating this profit and loss in the account filed *we* took into consideration all the business of the firm, did you not?

639 A. No, sir; we did not, as far as expenses are concerned. It is exclusive of the expense of this litigation; it doesn't show the profit and loss column in the least, but is charged to individual account; all the expenses of witnesses and traveling expenses, attorney fees—all incidental expenses in this suit is charged up individually to our personal account, or individual, rather.

Q. But I mean if — took into account all the expenses of selling elliptic springs, gears, and all other merchandize and business which was carried on, except the litigation of this suit.

A. Yes, sir; but you must remember also that we were only manufacturing since August, 1887, and prior to that we were selling other merchandise in connection with the Olin springs. A. *You*, sir.

Q. And the expense of selling that merchandise came in this account?

A. Also the profit.

Q. Also the losses of that merchandise?

A. Yes, sir.

Q. Can you tell me how much individual account you drew out of the firm in 1886?

A. I can as soon as we are through figuring with these.

Q. Up to the time that you and your brother commenced manufacturing springs you had nobody employed on a salary in your business, had you?

A. Yes, sir.

640 Q. Who?

A. We had a young man by the name of James K. Allen through the East and W. S. Rowe to do the smaller trade in the

West; we also had a book-keeper from 1884 or '85—I guess '85—from January 1, 1885. Yes; we had a book-keeper.

Q. Exclusively for this business?

A. We paid him so much for keeping our books; he was also employed on another set of books in the office.

Q. How much did you pay him on account of keeping the books for this firm?

A. I think we paid him $15 a week for '85, and I think $75 a month for '86.

Q. Can you tell me when you first began to sell McFarland and Company Olin springs?

A. I think the first set of springs I sold McFarland and Co. was in 1885; afterwards—I think it was in 1886 or '87 that we first sold him any quantity at all; I *no* it was after they had trouble with the cushion spring, because we could not compete in price the first year the cushion came out.

Q. The most of the sales to McFarland & Co. must have been after you commenced manufacturing the springs?

A. Yes, sir.

Q. And that is the reason why, I supposes, you sold as low
641 as $2.60?

A. Yes, sir, and another one is because they furnished their own spring bars and sent it to us, preferring to get it out in their own timber. They thought they could do it cheaper than we could buy them. We mounted them and sent them back.

Q. Is that the same with Hiram W. Davis?

A. No, sir.

Q. Did you mount them and furnish the spring bars?

A. Everybody except Geo. Engar and McFarland Enger preferred a longer tenant bar, or deeper tenent, rather, and he furnished us the bars; received the credit for what we paid for them.

Q. Do you remember when you first began to sell Simons, of Indianapolis?

A. Simmons, of Indianapolis, as I explained yesterday, was first sold through Hampden, a former wholesale dealer there. It was in 1884, I think. I might have sold him the cart springs, with this wide craft that I explained to you, in 1883.

Q. When did you sell him the bulk of them?

A. In '84, '85, and '86. I might say '85 and '86.

Q. When did you sell the bulk of springs to Wolf and Co.?

A. Wolf and Company were regular buyers in small lots right along from 1885 on the combination mounted on side bars, not the regular goods. I don't suppose he would average one set of regulars in 3 months.

642 Q. He bought right along until you quit?

A. Yes, sir.

Q. The cash book, which is not here, would show exactly what you drew out individually each month and exactly what your brother drew out individually each month, would it not?

A. Yes, sir, but that would not be an accurate account of each month'- personal account you asked for especially in my case, 'cause

my expense would sometimes be out for 2 or 3 months before I would render the expense account.

Q. Well, you would be credited for your expense account, but not on the cash book; that's the question; what book have you referred to in your testimony?

A. We have referred to the journal, ledger, and day book of E. D. Olin & Co. from 1883 to 1889; also bill book.

Q. And you have referred to the cash book?

A. Only as showing the way the cash account was kept.

Q. Now, after your brother has figured on the account, you will not answer the former question and state how much individual account your brother has for his statement to you he drew out during the partnership after the time of making up the account of profit and loss herein filed.

643 A. He drew out up to the year Dec. 31, 1888, sixty-eight thousand eight hundred and eighty-eight dollars and nineteen cents. He put in seventy thousand four hundred and seventy-four dollars and fifty-seven cents.

Q. How much did you draw out in 1886, '87, '88, and up to the time of this accounting filed herein in this case?

A. I drew out $4,469.25, the expenses on that of $2,932.39. This amount is up to Dec. 31, '88.

Q. Was anything drawn out from Dec. 31, '88, up to the time this accounting was taken by you?

A. There was something from Dec. 31 to January 29th, when we dissolved. The above amount is accrued to January 31, 1889.

Q. When did you take this accounting here filed as to profit and loss?

A. That was up to January 1st; I should say to July—July 31st, 1888—when we took our inventory. As it was dull then, we concluded to take an inventory the 1st of August instead of the first of January.

Complainant's counsel now reoffers the record before the master and the evidence taken by the complainant in this case and offers the book referred to in this examination and the cash book in the possession of the defendant-. Complainant rests.

644 Defendants' counsel objects to the offer of the book by complainant's counsel, as they are not in his possession to offer, but in possession of the master, and requests the master to allow the defendants to take their books, as they are necessary to their business, subject to being reproduced before the master for his inspection at any time upon due notice.

Cross-examination of witness by defendants' counsel:

Q. From the testimony in relation to the amounts drawn out by each of the partners and the amounts put in by each of the partners it appears that less was drawn out than the amount put in; is that correct? And, if it is, explain how it is that you show in your statement any profit from your business of manufacturing and selling the springs complained of.

A. I don't know that I exactly catch your meaning on that.

Q. I mean, for instance, that E. D. Olin has drawn out in the neighborhood of $2,000 less than he put in, and yet you figure your statement of profits that there has been some profit derived from the sale of the infringing springs.

A. Well, in the first place, there would have to be some money in any business before there could be any profit, while the profit as drawn as should have — drawn or would have — done pro-
645 viding we could have filled our contract that we had spent money to get. On the other hand, no salary is credited to either party outside of 1884, when the circumstances were these:

E. D. Olin did not put his whole time that year in the business and I was allowed $1,200 to offset the difference in the time.

Q. You have devoted your whole time and attention to the business from 1883 up to the time of the dissolution of the partnership, January 29, 1889?

A. Yes, sir.

Q. During that time were you engaged in any other business than the sale of the Olin springs and other carriage goods connected with that sale to which you have testified?

A. No, sir; I have not. I might add there that the same expense of attending the sale of these springs, if I hadn't sold other goods, would have been the same, and our profit and loss would have been much less if we hadn't handled these goods in connection with the others.

Q. I don't understand what you mean by the term your profit and loss would be less?

A. I mean loss. I mean that our profits would have been less if we hadn't sold these other goods.

Q. Prior to engaging in this business you had been previously engaged as salesmen in other businesses. Will you please state what you consider your time and attention was reasonably worth
646 during the time you were engaged in selling and managing the business in relation to the Olin springs?

Objected to by complainant's counsel as immaterial.

A. Part of the time that I was engaged in other business I received a salary of twelve hundred dollars a year, and part of the time I received a salary of fifteen hundred dollars a year and a per cent., which would amount to probably $1,800.

Q. During the time you were engaged in selling and managing the Olin springs had you any offer to engage in other businesses? And, if you had, state what they were.

Objected to.

A. Not as a salaried man, because my name appeared at the head of the business, and I don't suppose they thought they could hire me as a salary man, but I have been offered side goods a great many times on a per cent., but we preferred to buy and sell the goods; then we could do or dispose of them as we pleased.

Q. When you dissolved partnership, January 29, 1889, how much

money did you take out of the business or how much was credited to you as your share of the profit during the time you had been in the firm of T. D. Olin & Co.?

A. Not anything; I paid money to be released.

Q. How much?

647 A. $1,000.

Q. When this $1,000 was paid, because you had drawn out of the firm that amount in excess of the amount *amount* you had originally put in the business and subsequently drawn out for ordinary expenses of living. Is that right?

A. Not necessarily right. It was for this reason: I didn't care to engage in the manufacture of springs—continue in it, rather—as I couldn't see any money in it. After having my contracts cancelled for the Olin springs by an injunction, I didn't feel as though there was money enough in it for two of us, so I made the proposition that I would give amount of money to be released from all liabilities and as far as the Olin Spring Co. — concerned, with the exception of the Timken business.

Q. That exception as to the Timken business included whatever judgment might be rendered against you; whatever fees were due for litigation then unpaid?

A. No, sir; not for the litigation, but for whatever judgment—as the most of our litigation and expenses had been paid and are in the proper expense account of the firm—but as to the judgment they might get against us only.

Q. You have said that the expenses of this litigation were charged up *up* in the expense account of the firm, while in your former testimony, as I understood it, you stated that was

648 paid by the partners individually. Which is correct?

A. It is charged off the expenses of litigation instead of going into this profit and loss account; was divided and charged off personally, towards personal account of E. D. and T. D. Olin.

Q. Then, your profit and loss account as filed here includes all that you have made from the sale of the Olin springs, fifth wheels, side bars, carriages, and other carriage goods that you had purchased and sold without deducting anything for salaries or individual expenses, except for the year 1884, in which you were credited with a salary of $1,200. Is that right?

A. Yes, sir.

Q. In all the springs that were manufactured for you of the firm of T. D. Olin & Co. by the different spring manufacturers before you commenced to manufacture them yourselves were furnished by these parties as loose leaves, not fitted up for sale. Is that correct?

A. Yes, sir; all the goods that we received from spring manufacturers were simply sections of springs, afterwards took to our shops, mounted with clip, spring bar, side or couplings, and bolted to the block before being — out *out* to our customers. Some of them we also mounted with side bar and spar springs; that was what we termed the combination.

649 Q. Did you ever see the Timken spring mounted upon spar springs, like the combination spring you sold?

A. Yes, sir; I have seen one and one only, but I will say this: that the party that owned it used it not quite a week when he had the spar springs taken off and the head block and changed to the rigged gear.

Q. Why was this done?

Objected to.

A. On account of the roll you couldn't hardly turn a corner on a little trot that the buggy wouldn't spring over.

Q. It is a fact, then, is it, that the Timken spring, *as* made by his licensee, shown in his letters patent, is not adapted for use on spar springs or what you term your combination?

Objected to.

A. No, sir; it is not practicable, as the swing is too great; it would have to be changed altogether. As Brother Eccles says, you wouldn't get the double-sweep swing in it if he used it in connection with the spar springs.

Q. So far as you know, it was never sold in such combination?

650 A. No, sir; and, as I stated before, I never saw it used except in this one instance.

Q. You have mentioned in your testimony that you had lost some sales on account of the use of or competition you met with the automatic and cushion spring. Please describe each of these springs.

Objected to as irrelevant.

A. The automatic spring was a spring attached a great deal as my spring was, but without any coupling when I first came onto the market. The trouble was, the spring being used, the bearings coming onto the bolts, they would fracture at the bolt holes in almost every instance. While selling Emerson and Fisher the automatic spring came in and put the tie or crab or coupling across the centre and used it, sold it much cheaper than I could buy springs for, even. They made me proposition for the 2nd year, and if I would give them the use of the spring at the same price or even a little more that the automatic then was they would take mine in preference. Afterward Mr. Timken bought in the automatic and took it off from the market; then the cushion spring got up by Mr. Hedge came in and took the place of the automatic, which — prior to Mr. Hedge. He also sold the goods at a very low figure when in competition with us. He seemed to select our customers mostly, as the spring was almost identical with our spring. We couldn't

651 compete with prices and make money at it. Then, afterwards, in '86, I think, Mr. Timken also came and reduced his price and royalty.

Q. State, if you know, whether or not Mr. Hedge, — manufactured

both the automatic and cushion spring, is a licensee or was at that time of Mr. Henry Timken, the complainant.

A. Yes, sir; he was for the Timken spring—that is, I suppose he was a licensee; he advertised as such.

Q. For how long has he advertised as a licensee of Mr. Timken?

Objected to as irrelevant.

A. Well, I went into the spring business in '83; commenced taking the Carriage *Cash* Journal about that time, and also among the paid I found where he was selling the Timken, and has sold and furnished up to the first time the Timken spring.

Q. Do you know whether or not Mr. Timken has ever brought any suit against Mr. Hedge or the Cincinnati Spring Co., of which he is president, to enjoin the use of either the automatic or cushion spring?

Objected to as irrelevant.

A. No, sir; he hasn't.

Q. Do you know whether either the cushion spring or the
652 automatic spring has ever been used or sold to the trade in combination with *with* end spar springs and the side bars, the gear combination spring?

A. It never has as I have ever seen or ever heard of.

Q. This spring in its construction and action is nearer the Timken spring as sold than the Olin spring, is it not?

Objected to as irrelevant.

A. I might say one of them is near- the Timken than the Olin is, providing it was used as called for in the patent. The other was made the same shape of the Olin spring and could be used in combination as well as the Olin.

Q. These two springs, to wit, the cushion and automatic, has been your principal competitors in business, have they not?

Objected to as irrelevant.

A. I might say they have been all of the competitors I had, because their prices were such that I wouldn't compete in regard to price with them; consequently my sales in many instances where they had been used before—that is, the Olin—they wouldn't pay the price and we lost their sales.

Q. To what price customers did you usually sell the Olin spring; I mean both kinds and after, as to each, what you term regulars and what you term combinations?

653 A. What we term our regular spring we sold to the cheaper class of trade—people that were building largely for wholesale. Our combination is used on the better grade of buggies; something where they would use what we term a "rigged gear." They want a softer, neater buggy, made so because the spring is made straighter to correspond with the spar spring and to set the body down into the side bar and hang it lower to prevent the rolling mo-

tion which we get on our rigged gear—not only on our springs, but on all other cross-springs. I might state there that on account of the extra price of a $1 to $4.50 for spar springs that they wouldn't put that class of springs with the price into a cheap buggy. It is only on the better grade of buggies manufactured by some of the wholesale concerns that they leave the combination off, and they real-y take the place of a Brewster rather than of any rigged gear spring.

Q. Then it is a fact that the combination gear *not* not sold to any parties who have used the Timken spring?

Objected to as irrelevant.

A. They couldn't use the Timken on that style.

Q. Did you ever see any Tilton springs in use?

Objected to as irrelevant.

A. Never did but once.

Q. The place?

654 A. That is in Amesbury, Mass., where I suppose — buy them by 25-set lots, and they won't average over one hundred set of them in a year. They were gear men, and also put up buggies in the white. This was the only place I ever saw the Tilton spring used or put up, and I never saw them West.

Q. How extensively did Mr. Timken have a trade in the East?

Objected to as irrelevant.

A. Mr. Timken's trade in the East is limited to a very few manufacturers. It is mostly a Western spring.

Q. Is it or not used on what is known as the better class of buggies, such, for instance, — they use — the Brewster or the Olin combination, or even the Olin regular?

Objected to as irrelevant.

A. Prior to the *the* notices sent out by Mr. Timken I sold Olin regulars to parties that were putting up a better class of work, that hadn't used any Timken's for that class of work, and also sold them my combination to take the place of the Brewster's that was used on all fine side-bar buggies through the East. You very seldom see a rigged gear for a gentleman's driving buggy in the East.

655 Adjourned until 2 o'clock p. m.

2 O'CLOCK P. M.

Same parties present as at the morning session.

Testimony of T. D. OLIN continued.

Cross-examination:

Q. Please state how many of the spring manufacturers who made the Olin springs for you or for the firm of T. D. Olin & Co. were licensees of Mr. Henry Timken, the complainant herein.

Objected to as irrelevant.

A. They all of them were licensees, unless it was of one exception, the Detroit Steel and Spring Co.

Q. Did you ever see or read any of the licenses granted by Henry Timken to the spring companies -or manufacturing what is known as the Timken spring under license from Henry Timken?

Objected to as irrelevant.

A. Yes, sir.

Q. You may state whether or not there was a clause in that license *while* binding his said licensee, to manufacture no springs in infringement of the Timken patent.

Objected to as irrelevant and that the license *was* is the best testimony.

Counsel for defendant states that as he is not in possession
656 of any of the licensees, nor has he any means of obtaining them, if complainant's counsel will submit one of these licenses in evidence in this accounting the question will be withdrawn, otherwise we will insist upon the answer as the best evidence in possession of the defendant.

Counsel for complainant says that he has no such license in his possession. Defendants' counsel requests of complainant's counsel to state of record whether or not there is not such a clause as inquired about in the licenses granted by Henry Timken to the different spring manufacturers.

Complainant's counsel don't propose to state anything about it, because he don't know, and in the next place it is irrelevant.

A. There is some such clause about the manufacture of *of* any spring that infringes the Timken patent in it or something *in* that substance.

Q. You may state, Mr. Olin, how you came to engage in the manufacture and sales of the Sickel springs, what, if any, effort you made to ascertain whether or not it was a valid patent or infringed upon either the Timken patent or any pre-existing patent.

Objected to as irrelevant.

A. In 1882 I first started to get a road wagon. I went to Whit-
tiker and Sickel, Sickel that was the original inventor of this
657 spring, to get one up. He made the remark to me, I have a spring here that I will put under the buggy; if it isn't satisfactory will change it. I run that spring probably six or seven months; then asked him why he didn't put it onto the market, as it was a much better spring in my estimation than the Timken, as it didn't roll and shake as the Timken spring did. He said that he didn't have the money to put it onto the market. Probably 2 or 3 months afterwards the proposition was made to me to take hold of it, which I finally did, and after probably 3 months' work*s* I received a letter from Mr. Timken asking if I was putting "that spring" on the market and claiming that it was an infringement. Upon the receipt of that letter I went to my attorney, Mr. Boudinot, of Terre Haute, talked with him, and was advised to investi-

gate it. I had made proposition prior to this to buy the patent, but before doing so concluded I would go to Washington and examine into the patent. After being there and looking over through the Patent Office I came to different specifications of springs. I didn't care to risk my own judgment or my former attorney'-, so I went to Munn & Co., W. H. Doolittle, Smith and Anderson and got a written opinion from each one of those whether this spring infringed the Timken spring or any other cross-spring. Each
658 one of those firms stated that there wasn't any infringement against the Tim*m*en spring. About 6 or 7 months after I came home—in the meantime I had bought this patent on the representation of these different attorneys; then about six months after Smith, Sutton & Co. wrote me that they would like to get hold of some side-bar springs and manufacture exclusively or manufacture it exclusively, and if I would come to Pittsburgh probably we could make arrangements. I went there. We made temporary arrangements while their attorney examined as to the validity of the patent and also as to the infringement upon other springs. They wanted me to pay this expense, but I declined on the ground that I had these other written opinions. While this was being done I agreed with them to buy only, exclusively, of them, with the exception of a few springs that I had contracted for with the Tuthill Spring Co. After a short time I received notice *that* Smith, Sutton and Co. saying that th*e*re were ready then to open negotiations or, rather, complete negotiations for the exclusive right to manufacture the Sickel spring, as they had received an opinion from Geo. H. Christy that they would run no risk *of* taking the right to manufacture as far as — Timken or any other cross-spring was concerned, but the matter dropped through, because I wouldn't *except* the royalty that they would give me. I went to work then put-
659 ting the spring on myself, working it through the trade, and the last I heard of Mr. Timken until some time in '85, I think, '86 it might have been, when he came to our office at West 6th street and had a talk with my brother; he told him I was in Michigan at the time, and if he would come back Thursday he would have me there. I received a telegram at Kalamazoo, Mich., came home, waited here, but Mr. Timken didn't return. Then in the fall of '86, either '86 or '87, I met him at Boston, at Mr. Bridges', Mr. Timken's son-in-law; was the first talk I ever had with him personally about my infringement; I could hear it from other parties over the country, *but* where Mr. Timken and Mr. Bridges had spoken about infringement, but never had any talk about it with either one of them until this time. I invited Mr. Bridges at that time to open up his suit and stop the talk, and he said, as he had told others a great many times, that he would do so after awhile, when they got ready; and afterwards in '87, in New York, I met Mr. Timken just after the suit was filed; I think it was the first time I ever met Mr. Timken personally. *Qe* had conversation about the infringement of the spring; I told Mr. Timken at the time that I was just as confident as he was that I didn't infringe as he was that I did, and

that my money was backing my opinion just the same as his
660 was, and it was a question that neither of us could determine. As long as he had started the suit we might just as well be friendly and let the court make the decision. But everything has been thrown in our way as far as sales are concerned from the time that I *r*irst took hold of the spring in regard to report of infringement and in regard to our liabilities also. Ha*t* it not been for that our sale would probably have been five times what it was to the present time. It wasn't a question of the difference between the Timken and Olin spring, but because any new spring put upon the market must be at a little less figure to make it an object to the purchaser to get it introduced, just the same as Mr. Timken received 9 and 10 dollars for his goods when the Brewster asked 20.

The answer is objected to by counsel for the complainant as irrelevant and hearsay.

Q. What is the Woodhull spring, if you know?

A. The Woodhull spring is simply the Timken spring with a fulcrum put about 4 inches from the end—that is, the heavy end of the spring.

Q. Resembling in that respect the Tilton spring?

A. No, sir; the Tilton spring is — articulated joint in the centre.

Q. The Woodhull spring is simply what?

A. The fulcrum near the end of the spring that it works on.

661 Q. Was that in competition with your spring?

Objected to as leading and irrelevant.

A. Yes; that is in competition with it.

Q. Do you know whether that is licensed by Mr. Timken?

Objected to as irrelevant.

A. Yes, sir.

Q. Do you know what the licensee on that is?

A. The licensee on that used to be 50 cents, but Mr. Woodhull says that he has still got a reduction to that.

Answer objected to as irrelevant and hearsay.

Q. That license is from Henry Timken?

A. Yes, sir.

Q. Can you state how many of your customers were customers of Mr. Henry Timken or purchasers of the Timken spring prior to the time you commenced selling to them?

A. Well, there is probably the same customers of the Tim*m*en springs today as *it* were then in *d*uying the goods. My goods go on the vehicles where they *where they* wouldn't have Timk*i*n's anyway.

Answer objected to as irrelevant.

Q. You have stated all of the springs manufactured for your company by the various spring manufacturers were furnished to you as separate leaves or sections. Please state what you did to these sec-

662 tions after they were received and before they were put upon the market. State as near as you can the cost of mounting these springs and the different articles and the amount of labor it costs to mount them?

A. We took those springs, put them on a bar where we- a crab or coupling in the centre fore bolt and a spring bar and a coupling, and the labor, in 1884 or '83, it costs about 70 cents a set. In '84 we reduced it to probably 50 cents; in '85 we reduced that to probably 35 cents. Then there was the labor of $2 per day that we paid a man for mounting it. The first was the actual cost of the clip, bolt, crab or coupling, and spring bars. A man would mount about 60 set- a day at $2 a day; that refers to our regular spring; on the combination the same material was used, and in addition to that was a side bar that we paid from $1.10 to the last we bought, I think, we paid 75 cents per pair. Then, their is 8 clips, and a man will mount those on side bars, mount 10 set- a day at same pay of $2 per day, that's 20 cents a set for the labor; then there is a pair of end spring- that we used to pay, before we manufactured, $1.25 and $1.00 per pair.

Q. In selling your spring so mounted did you sell them to the dealers, to the manufacturers, at cost of mounting or did you add a profit for the mounting of these springs?

A. We always counted the profit on our mounting.

Q. Can you estimate what that profit was on each set?

663 A. We used to try to get about 25 cents over and above the cost of the material and labor. In the case *the case* of side bars we used to try to get more, but as we bought side bars that we sold without any springs to them and received a profit on those the same as the wholesale manufacturers would.

Q. Well, you also purchased Brewster schack*els* in large quantities and so furnished in your springs. Did you make any profit on these?

(Objected to as leading.)

A. We always counted a profit on our schack*el* and bolt.

Q. In purchasing these spring bars, side bars, spar springs, schack*els*, bolts, and clips in large quantities, which you did, were you able to purchase them for less than the general trade could purchase them?

A. The smaller trade? Yes, sir; because there is a rebate on all of those association goods for a certain amount of goods purchased. We used to buy some of those goods in quantities so as to enable us to get the rebate; for instance, shack*els*. We bought shackles and sold to spring men in large quantities at a profit.

Q. From the best information you have, please state whether the profits that were made by the firm of T. D. Olin & Co., or how much of them, can be attributed to the profits made by the sales of other goods than the springs themselves and how much can be attributed to the sale of what is known in this suit as the Olin spring?

664 A. Candidly speaking, I think the profits on our outside business consumed by the Olin spring, as well as the money that was originally put in, making the original investment, and my payment to get out, I can't see where the profit is.

No further redirect examination.

Counsel for defendants states on the record that the defendant E. D. Olin is present and has been during the whole of this examination with the books of the firm of T. D. Olin and Co., which books are now used in his regular business, since the dissolution of said firm, and requests complainant's counsel, if he desires to examine this witness, to do it now, and if not, requests the master to return the books to E. D. Olin, subject to his order for reproduction hereafter if complainant's counsel desires further testimony in relation to said books.

Complainant's counsel states that he is informed that there are but two of the books that are used in the defendants' business, and therefore requests the master to retain those that are not used in his possession until the evidence in this case is closed, subject to *the* inspection by the complainant's counsel.

Adjourned until tomorrow morning at 9 o'clock.

664½ FRIDAY MORNING, *April* 26.

Present: William M. Eccles, counsel for complainant.

Further hearing of this case continued until Monday, May 13th, 1889.

Adjourned.

665 Before B. R. Cowen, master.

HENRY TIMKEN, Com., *vs.* T. D. OLIN *et al.*, Def'ts. } Equity. 3853.

The complainant hereby accepts the account filed by the def'ts as to the number of springs which they made and sold since the formation of the partnership as correct, but affirms that said Thomas D. Olin did, prior to that date, make or sell fifteen hundred sets of said infringing springs, as the books show, and asks that said amount be assessed & found against him in addition to the patnership account.

The complainant elects to take the damage instead of the profits.

WM. M. ECCLES,
Att'y for Plaintiff.

[Endorsed:] Henry Timken *vs.* T. D. Olin *et al.* Before master. Filed July 18, 1889.

666 And afterwards, to wit, on the 14th day of August, A. D. 1889, the following exceptions to master's report *was* filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Exceptions to Master's Report.

667 Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMKEN
vs.
THOMAS D. OLIN & EDWIN D. OLIN. } In Equity. No. 3853.

Exceptions to master's report.

Exceptions taken by the defendants to the report made herein by B. R. Cowan, special master, to whom this cause was referred by an order of this court made and entered on the 18th day of January, 1889, which report bears date the 15th day of July, 1889.

First exception. For that the said master in his said report has found that complainant has been damaged to the amount of license fees fixed by complainant, to wit, prior to January, 1886, at $2 per set, and since that date at $1 per set, whereas no established license fees have been proven, no license introduced in evidence, and nothing but mere hearsay testimony introduced in relation to any license.

Second. The master found, contrary to evidence, that defendant had full legal notice that they were infringing complainant's rights and continued to infringe after such notice, whereas the proof is that the defendants were acting in good faith under protection of letters patent in strict accordance with which the spring held to be an infringement was made and under the advice of able counsel that their spring did not infringe upon any existing patent.

Third exception. The master disregarded the testimony of the complainant's own witness to the effect that nearly all the
668 springs complained of were made and sold *by* defendants by the license-s of complainant.

Fourth exception. The master has considered the account filed by the defendant- after the same was rejected by complainant and withdrawn by defendant-.

Fifth exception. The master has returned profits as made by defendant-, although none has been proven, and after profits were waived by complainants.

Sixth exception. The master has considered testimony taken for hearing-in-chief, which testimony was not brought before master in making up the accounting, so that defendant- might have answered or explained the same, but was only referred to in argument and requests for finding.

Seventh exception. The master ignored the testimony relating to what is known as the combination gear sold by defendant- and awarded damages upon said gears, whereas the proof is that the complainant's springs could not be used and never were used upon such gear.

Eighth exception. The master erred in assuming, in the absence

of our proof, that had the defendants not sold the springs they did sell complainant would have sold such springs, and that the complainant was damaged to the amount of springs defendant- sold.

Ninth exception. As complainant proved no damages the master erred in not returning merely nominal damages.

Tenth exception. The master ignored the testimony of the witness that there was no fixed license fee for Timken spring, but that licenses were granted at reduced rates to parties operating under their own patents.

Eleventh exception. The master disregarded the order referring the case to him.

GEO. J. MURRAY.

669 And afterwards, to wit, on the 15th day of January, A. D. 1890, the following ruling against exceptions was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Ruling Against Exceptions.

Circuit Court of the United States, Southern District of Ohio, Western Division.

HENRY TIMMEN
vs.
THOMAS D. OLIN & EDWIN D. OLIN.

This case came on for hearing upon exceptions to the master's report.

The first exception is to the master's finding that the complainant has been damaged to the amount of license fees fixed by complainant, whereas no established license fees have been proven and no license was introduced in evidence, and that there was nothing but hearsay testimony introduced in relation to any license.

670 This exception will be overruled. The master reports that "there was an established license fee for the use of the springs, as appears by complainant's testimony in the case." That is sufficient to sustain the finding. Whether any license was introduced in evidence is wholly immaterial, and the objection that oral testimony to prove the existence of an established license is hearsay is not well founded. Wooster *vs.* Simonson, 20 F. R., 316.

The second exception will also be overruled. Whether the defendants had full legal notice that they were infringing complainant's rights and continued to infringe after such notice, which is the master's finding, is also immaterial, because the report is for actual damages only, and the infringement being established the complainant's right to damages does not depend upon the knowledge or the ignorance of the defendants as to the complainant's rights. He is entitled to compensation upon proof of infringement whether defendants were acting in good faith or under the supposed protection of letters patent or not. The master's report gives to the complainant compensation only in the way of damages.

The third exception is that the master disregards the testimony of the complainant's own witness to the effect that nearly all the springs complained of were made and sold to the defendants by the licensees of complainant. The proposition of the counsel for the defendants is, in effect, that the fact that the defendants had the springs which they sold manufactured by complainant's licensee- is a complete defense to the complainant's suit for profit or damages.

671 It is not proven or claimed that the licensees manufactured or sold springs for the defendants under their license; on the contrary, they were manufactured under the defendants' patent, the licensees not accounting for them to the complainant nor regarding them as being within the terms of their license, but, on the contrary, being assured by the defendants that they were not an infringement of complainant's patents. The complainant might, had he so chosen, have included the licensees as defendants. The mere statement of the proposition that all that is necessary for an infringer to do in order to escape liability for his infringement is to procure the manufacture of the infringing article by a licensee of the complainant is sufficient for its refutation. The exception is overruled.

The fourth exception is in conflict with the facts as found by the master in accordance with the testimony, and is overruled.

The fifth exception, that "the master has returned profits as made by defendant-, although none have been proven and profits were waived by complainants," is not well taken. The master refers in his report to profits made by defendants, but it is to the total profits of the whole business of the defendants during the time of their partnership, without allowance for certain items of expense, to which the master states they were entitled; but his finding of the indebtedness of the defendants to the complainant is exclusively upon the license fee as the proper measure of damages. The fifth exception is therefore overruled.

The sixth exception and seventh exceptions are also overruled. There is nothing but the statement of counsel to sustain either of

672 these exceptions. I do not find anything in the record sustaining the eight, ninth, tenth, or eleventh exceptions. They are also overruled.

Counsel for the defendants has in his brief restated propositions against the validity of the complainant's patents. The patents having been sustained, those propositions will not be considered. Counsel refers to the fact that there are three patents in suit; that they vary in date, and that the damages for infringement of each have not been apportioned. But the fact of infringement has been estabiished, which is all that is necessary. The proposition made by counsel that there should be an apportionment is as novel as it is unsound.

It is also urged that license fees are not a proper measure of damages unless the patent sued upon is a foundation patent. This is a remarkable proposition and altogether without authority. The Supreme Court, in Seymour *v.* McCormick, 16th Howard, one of — earlier cases, refers to the license fee as indicating the market value

of the patent, and that is the principle upon which it is recognized as a rule of damages, just as the price which people pay in market for wheat is recognized as a correct measure of its value. Whether the patent be a foundation patent is wholly immaterial. The true question is whether there is an established license fee. The master has properly found this fact in favor of the complainant, and his report is correct and will be sustained.

The decree will be for the complainant for the amount found by the master.

SAGE, *J.*

673 And afterwards, to wit, on the 15th day of January, A. D. 1890, entry was made upon the journal of said court clothed in the words and figures following, to wit:

Journal Y, p. 532.

THE UNITED STATES OF AMERICA, } ss:
Southern District of Ohio, Western Division, }

At a stated term of the circuit court of the United States of America within and for the western division of the southern district of Ohio, in the sixth judicial circuit of the United States of America, begun and had in the court-rooms, at the city of Cincinnati, O., in said district, on the first Tuesday of October, being also the first day of that month, in the year of our Lord one thousand eight hundred and eighty-nine, and of the Independence of the United States of America the one hundred and fourteenth.

Present: The Hon. George R. Sage, district judge.

On Wednesday, the 15th day of January, 1890, among the proceedings had were the following, to wit:

HENRY TIMKEN, Complainant,
vs.
THOMAS D. OLIN and EDWIN D. OLIN, Partners as T. D. Olin & Co., Respondents. } In Equity. #3853.

This case having heretofore been fully heard and a decree of perpetual injunction and for an accounting having been entered against the respondents herein on the 18th day of January, 1889, and the case having been referred to B. R. Cowen by the court, the
674 parties consenting to such reference, to assess the profits and damages;

And said Cowen having heretofore made out and filed his report as found and adjudged by him, to wit, on the 15th day of July, 1889;

And afterwards exceptions to said master's report having been filed by the respondents, and all of said exceptions having been heard and considered by the court, it is hereby ordered, adjudged, and decreed that said exceptions to the master's report herein be, and the same are hereby, overruled by the court, and that the said report of the master be, and the same is, in all things affirmed.

It is further adjudged, ordered, and decreed that the complainant, Henry Timken, recover of the respondents, Thomas D. Olin and Edwin D. Olin, the sum of twenty-seven thousand eight hundred and ninety-seven dollars and seventy-five cents ($27,897.75), together with interest thereon at the rate of — per cent. per annum, and that he recover all costs of this suit, including the fee of the special master of $340.00, which is hereby allowed, and that said complainant be awarded execution therefor.

To which defendants except and pray an appeal, which is allowed, and the bond is fixed at $1,000.00.

675 *Stipulated Evidence.*

United States Circuit Court, Southern District of Ohio, Western Division.

HENRY TIMKEN *vs.* T. D. OLIN *et al.* } In Equity. No. 3853.

It is hereby stipulated and agreed by and between the parties to this suit, that Henry Timken, above named, if called, would testify as follows, to wit: That the bill of date, February 6th, 1877, against Henry Timken and in favor of the Spring Perch Company, of Bridgeport, Connecticut; that the bill of June 7th, 1877, against said Henry Timken and in favor of said Spring Perch Company, and the bill dated September 23d, 1876, against said Henry Timken and in favor of the said Spring Perch Company, which bills are hereto annexed, are all original bills, sent by the said Spring Perch company to said Henry Timken for springs and shackles made by said company for said Henry Timken before their respective dates, and that the word "pat." in said bills means patterns after which the springs charged opposite said word, or its ditto, were made; and that the said patterns were sent by the said Henry Timken to the said spring Perch Company to make the springs after, and that the said patterns and springs made after said patterns and charged in said bills, were the same in form and shape as the present Timken spring, and that said bills were found after he gave his testimony in St. Louis, Mo., in this suit, and that the said bills may be admitted and used as evidence with the same force and effect as though they had been introduced in evidence regularly, and that this stipulation may be read at the hearing of this suit, with
676 the same force and effect as if the evidence of said Henry Timken to the same effect were regularly taken in this suit, subject to all proper exceptions.

WM. M. ECCLES AND
WM. HUBBELL FISHER,
Solicitors for Complainant.
GEO. J. MURRAY,
Solicitor for Defendants.

Cincinnati, Ohio, October, 1887.

677

Return in five days, to HENRY TIMKEN,
818 Pine Street, ST. LOUIS, MO.

Timken Spring.

"Hawley's Envelope."
Curtis Thompson,
Notary Public.

Mr. F. B. Hawley, Treas.
Spring Perch Co.
Bridgeport,
Conn.

678 EXHIBITS.

ST. LOUIS DISPATCH EXHIBIT.

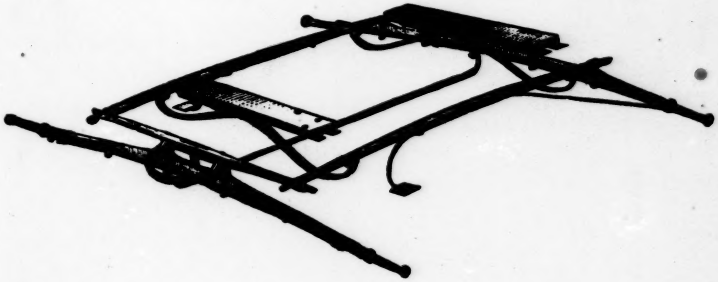
TIMKEN'S EXHIBIT TWO PRIME (2′). Sept. 23d, 1887. A. A. Paxson, Notary Public.

St. Louis Dispatch.

ST. LOUIS, SATURDAY EVENING, *May* 18, 1878.

Timken's Patent Springs.

Something new for side-bar vehicles.



Having for years been manufacturing carriages in this city, I have had ample opportunities of noting the objections to most all springs that have been used. After due trial of most all springs that have heretofore been in use, and experimented myself in the manufacture of same, I flatter myself that I can at least offer to the public a spring that meets the requirements of the age. It is only in the last three or four years that the side-bar vehicles have come into general use; but nearly every owner of a side-bar buggy has been dissatisfied, owing to its rough and uneasy riding qualities. I have overcome all of these objections, and now offer to the
679 public a perfectly easy riding side-bar wagon, equally as well adapted to the rough country roads as to the fine driving parks of our cities.

The advantages that I claim for it are:

1. Vehicles with these springs are especially adapted for ladies' use as well as gentlemen, as they hang low, are easy of access, very graceful and stylish.

2. They are also especially adapted to road and speeding wagons, as they have no surging motion and the elasticity of the springs allows them to yield to any obstruction or unevenness in the road, and does not throw a horse out of his gait.

3. The peculiar construction of the gearing, which forms a square frame with the side bars attached to the head block and back axle, and well braced, makes the wagon run steadier, and

without the jerking and twitching motion occasioned by uneven roads and fast driving.

4. The springs connecting with the side bars on one side, and crossing to the opposite side of body, make it longer, and consequently more elastic than any other spring.

5. The spring adapts itself to the weight it carries by increasing the length of the bearing according to the load put upon it, therefore being the only spring that will ride as easy with one person as with four.

6. There is less labor and expense in producing it; it has no useless irons to get out of order; it is noiseless, lighter, and the most durable vehicle built.

7. One great point in favor of it is that it can be sold lower than any equally fine vehicle, on account of its simplicity of construction. We have only quoted a few of the many advantages; by trying them the other qualities will show for themselves.

I respectfully refer to the following testimonials of well-known citizens of St. Louis, some of whom have used the springs for the past eighteen months.

Respectfully, HENRY TIMKEN.

ST. LOUIS, MO., *Jan.* 28, 1878.

Mr. H. Timken.

DEAR SIR: Having given your springs a thorough test, I
680 find that it is the easiest riding side-bar springs I have ever used, and for elasticity and durability I do not think it can be surpassed.

Respectfully, JESSE ARNOT,
Livery Stable, 908 *Chestnut Street.*

ST. LOUIS, *Jan.* 30, 2878.

Mr. Henry Timken.

DEAR SIR: In answer to your inquiry relating to my two-seated vehicle with the new Timken springs, I will say that after one season's use, I am better satisfied with them than any springs and vehicle I have ever used. It is my opinion that the springs have worn so well that there is very little difference now and the day it came out of the shop.

Yours respectfully, JAMES LUPE,
Wholesale Liquor Dealer, 324 *Olive Street.*

ST. LOUIS, MO., *Jan.* 27, 1878.

Mr. H. Timken.

DEAR SIR: In regard to the side-bar buggy with your new patent springs, which I bought of you last summer, there can be only one decision about it, and that is, that it far excels any other kind of spring vehicle that I ever rode in. I have had gentlemen from New York, Boston, Chicago, Terre Haute, Cincinnati, Louisville, and many other friends to ride with me over these disgraceful rough streets and roads of our city, and I can positively assert that each one of them gave the same opinion as above.

Yours, respectfully, A. McELRATH,
Dealer in Gents' Furnishing Goods, 509 *N. Sixth Street.*

ST. LOUIS, MO., *Jan.* 30, 1878.

Mr. Henry Timken.

DEAR SIR: Having had one of your patent-spring buggies in almost constant use, running it in all parts of the city and suburbs for the last eighteen months, I can positively say that it is the most durable and easy-riding buggy that I have ever used.

Yours truly, JOHN M. SELLERS,
Composition Roofer, Office Southeast Corner Fourth and Market Streets.

681 ST. LOUIS, MO., *Jan.* 29, 1878

Mr. H. Timken.

DEAR SIR: Having in use for the past year Timken's side-bar buggy, with patent spring, I can most cheerfully recommend them, either for private use or livery, they having all the requisites in point of elasticity and durability.

Respectfully, F. A. DURGIN,
Silversmith, Seventh and Olive Streets.

ST. LOUIS, *Jan.* 29, 1878.

Mr. Henry Timken.

DEAR SIR: In response to your inquiry about the side bar new Timken spring buggy we purchased from you last year, we state with pleasure that we are not only fully satisfied with it, but will urge all our friends to use the springs when ordering a vehicle. We believe that it is the most comfortable spring we ever rode over, and that its durability and strength can be fully relied upon.

Very respectfully yours,
CHANDLER, SMITH & CO.,
Commission Merchants, 407 and 409 S. Main Street.

MISSOURI STOVE FOUNDRY, ST. LOUIS, *Feb.* 1, 1878.

Mr. Timken.

DEAR SIR: I have owned one of your improved buggies for a year; I have found it a very pleasant riding, running, and substantial vehicle, and very desirable for ladies.

Yours truly, CHARLES GAGE,
3300 Broadway.

ST. LOUIS, *Jan.* 29, 1878.

Mr. Timken.

DEAR SIR: In responce to your request for my opinion of your side-bar buggy with patent springs, I would say that, having *having* purchased one in October last, which has been since in continual use, I have no expression to make concerning it, except one of satisfaction. The fact that I have ordered a second one, for a friend, sufficiently demonstrates this.

Yours very truly, CHARLES P. DAMON,
Wholesale Liquors, 408 and 410 Elm Street.

682 For carriages and springs apply to Henry Timken, builder of fine carriages. Established 1854. Has always on hand and builds to order all kinds of light work, including the favorite four-seat Warwick or park wagon, on Timken patent springs at 1006, 1008 and 1010 St. Charles St., St. Louis, Mo.

License granted to carriage-builders to use the Timken patent springs on royalties. For terms apply as above.

683 *Bills Annexed.*

BRIDGEPORT, CONN., *Sept.* 23, 1876.

Mr. Henry Timken, St. Louis, Mo., bought of Spring Perch Co., manufacturers of **first-quality springs** and axles, ivory, rubber, gold, and silver plated coach trimmings, **brass castings,** curtain rollers, etc.

Terms: If not paid when due, subject to a draft, (at sight), with exchange on **New York.**

Plates.	Width.	Thickness.	Length.	Open.	No.						
4	1¼	3 & 4	36	8½	5536	5 pair	E. M.	Eng.	Wt.	204	
4	"	4	35	8½	5537	6 "	"	"	"	190½	
4	1⅜	3 & 4	36	8½	5538	2 "	"	"	"	73½ 17c.	
3	1¼	"	34	8½	5539	2 "	"	"	"	50=518	88 06
3	"		28		5540	3 "	Circular			6.50	19 50
3	"		25		5541	1 "	"				6 50
3	"		29¼	2	5542	3 "	Half			3.75	11 25
3	"		26¼	2	5543	1 "	"				3 75
						Royalty on 4 pair circulars					40 00
5	1⅜		Pat.		5581	1 pair half					6 00
4	"		"		5582	1 "	"				5 00
										Boxing	1 50—181 56

1 box via Mer. Dispatch.

684 BRIDGEPORT, CONN., *February* 6, 1877.

Mr. Henry Timken bought of Spring Perch Co., manufacturers of first-quality springs and axles, ivory, rubber, gold, and silver plated coach trimmings, brass castings, curtain rollers, etc.

Terms, 4 mos. or 5 % cash. If not paid when due, subject to a draft, (at sight), with exchange on New York.

Plates.	Width.	Thickness.	Length.	Open.	No.			
5	1½	2 & 3		Pat.	7219	2 pair	half	
6	"	"		"	7220	1 "	"	
5	"	"	½ in. shorter than Pat.		7221	1 "	"	
4	1⅜	"		Pat.	7222	3 "	"	
4	1⅜	"	½ in. shorter than Pat.		7223	1 "	"	M 2 30–26c. 59 80
5	1⅜	"	½ in. shorter than P.		7224	2 "	"	
3	"	"	½ in. shorter than Pat.		7225	2 "	"	

6 sets Brewster shackles, bolts, tubes & washers, 2 12 00 71 80

Settled by note, payable one month from May 15, 1877.

Spring Perch Co.,
W. Burnham,
Ag't.

1 box U. Star Line.

685 BRIDGEPORT, CONN., *June* 7, 1877.

Mr. Henry Timken bought of Spring Perch Co., manufacturers of first-quality springs and axles, ivory, rubber, gold, and silver plated coach trimmings, brass castings, curtain rollers, etc.

Terms: If not paid when due, subject to draft (at sight), with exchange on New York.

Plates.	Width.	Thickness.	Length.	Open.	No.				
4	1¾	2 & 3	Pat.		9807	3 pair half wi-th			
3	1¼	3 & 4	"		9808	3 " " Brewster	89 lbs.	26c.	17 94
3	1¾	2 & 3	"		9809	3 " " Shackles			
3	1¾	3 & 4	"		9810	3 " "			
						6 set- W shackles		1 50	9 00
							Boxing	25	27 19

686 *Assignments.*

COMPLAINANT'S EXHIBIT STIVERS AND TILTON ASSIGNMENT TO HENRY TIMKEN. September 30th, 1887. A. A. Paxson, Notary Public.

Rufus M. Stivers and Joseph Tilton to Henry Timken.

Assignment dated March 22d, 1881.

Whereas, Joseph Tilton, of the city and county of New York and State of New York, and Rufus M. Stivers, of the city and county of New York and State of New York, party of the first part, are the sole owners of reissued letters patent of the United States, for a spring for vehicles, which reissued letters patent are numbered 9542, and bear date the 25th day of January, 1881, and of all rights under the same, and, whereas, Henry Timken, of the city of St. Louis and State of Missouri, party of the second part, is desirous of acquiring the entire interest in the same.

Now, therefore, to all whom it may concern, be it known that, for and in consideration of the sum of one dollar to said party of the first part in hand paid, the receipt of which is hereby acknowledged; the said Joseph Tilton and Rufus M. Stivers, party of the first part, have severally and jointly sold, assigned and transferred, and by these presents, do sell, assign and transfer unto the said Henry Timken, party of the second part, the whole right, title and interest, in and to the said improved spring for vehicles, and in and to the letters patent therefor aforesaid; the same to be held and enjoyed by the said party of the second part, for his own use and be-
687 hoof, and for the use and behoof of his legal representatives to the full end of the term for which said letters patent are granted, as fully and entirely as the same would have been held and enjoyed by said party of the first part severally or jointly, had this assignment and sale not been made.

In testimony whereof, we have hereunto set our hands and seals,

in the city of New York and State of New York, this 22d day of March, 1881.

RUFUS M. STIVERS. [SEAL.]
JOSEPH TILTON. [SEAL.]

Witnesses:
W. C. WITTER,
O. B. DEAN,
To signature of Rufus M. Stivers.

Witnesses:
GEO. M. STIVERS,
VITAL REUSSICAR,
To signature of Joseph Tilton.

Received for record May 16th, 1881, and recorded in Liber S, 26, page 219 of Transfers of Patents.

[SEAL.] In testimony whereof I have caused the seal of the Patent Office to be hereunto affixed.

E. M. MARBLE,
Commissioner.

688 *Copy of Assignment from Saladee to Peters et al. April* 22, 1882, 154,916, 197,669, 228,397, 240,850, 239,850, 240,464.

Assignment of patents, C. W. Saladee to Peters Dash Co.

To all whom it may concern:

This indenture witnesseth that whereas letters patent of the U. S. were granted to Cyrus W. Saladee, now of Forrington, in the State of Connecticut, for sundry and various improvements in vehicles, as follows, to wit:

1st. For improvements in carriage tops, letters patent, No. 154,916, and dated the 8th day of September, A. D. 1874.

2d. For improvement in road wagons, letters patent, No. 197,669, and dated the 27th day of November, A. D. 1877.

3d. For improvement in road wagons, letters patent, No. 228,397, and dated the 1st day of June, A. D. 1880.

4th. For improvement in road wagons, letters patent, No. 240,850, and dated the 3d day of May, A. D. 1881.

5th. For improvement in road wagons, letters patent, No. 239,850, and dated the 5th day of April, A. D. 1881.

6th. For improvement in road wagons, letters patent, No. 240,464, and dated the 19th day of April, A. D. 1881, and whereas George M. Peters, Clinton D. Firestone and Oscar G. Peters (said parties composing the Columbus Buggy Co. and the Peters Dash Co.) of Columbus, State of Ohio, are desirous of obtaining the sole and exclusive right in and to all the hereinbefore-recited several grants of letters patent,

Now, therefore, in consideration of the sum of twenty-five thousand dollars, paid by the above-named parties to the said Saladee, the receipt whereof is hereby now acknowledged, the said Saladee does, by these presents, sell, transfer and assign, all his right, title

689 and interest in and to all the hereinbefore-recited several grants of letters patents unto the said George M. Peters, Clinton D. Firestone and Oscar G. Peters, to have and to hold the same for their sole use and behoof, their heirs and assigns, to the full end of the term for which said letters patents are issued respectively, in as full and ample a manner as the same could have been held and enjoyed by the said Saladee if this sale and assignment had not been made. And by virtue of this assignment and for the consideration herein named, the said Saladee hereby releases the aforesaid Geo. M. Peters, C. D. Firestone and O. G. Peters, (or "Columbus Buggy Co.," or Peters Dash Co.) of all royalty considerations which may have been expressed and provided in any or all licenses by him issued to the above-named parties at any time prior to the date of these presents.

In testimony whereof, the said Saladee hereunto sets his hand and seal, on this, the 22d day of April, A. D. 1882.

CYRUS W. SALADEE.

Witness:
CHARLES W. SALADEE.
L. J. CHAMBERS.

Assignment from George Peters, Clinton D. Firestone and Oscar G. Peters, to Henry Timken, of patent for road wagon, No. 239,850, dated 5th day of April, A. D. 1881. (Ordinary assignment consideration one dollar, and for the whole term of said patent for the whole United States.)

690 LETTER EXHIBITS.

COMPLAINANT'S EXHIBIT KEMMERER'S LETTER. Sept. 24th, 1887.
A. A. Paxson, Notary Public.

[SEAL.] T. F. Wells, Notary Public, June 23d, 1887.

Office of Bittenbender & Co., dealers in a varied and well-selected stock of select wagon wood and iron work, 128 Franklin avenue.

SCRANTON, PA., *May* 16, 1887.

Mr. Henry Timken.

DEAR SIR: In the (summer or) fall of 1876, we furnished a young man by the name of Ruple a pair of double-sweep side springs, at Hazleton, Pa. Some time later, on a trip that way, he showed me a wagon with these springs cut in halfs, and applied much as yours are today. Early in the spring of 1877, he telegraphed me to meet him in Pittston, Pa., nine miles below this city, to see his new spring; and his spring was as near like yours of the present as you could make them.

Respectfully yours, J. M. KEMMERER.

I could give accurate dates of the purchase of above springs; also date of riding on his completed spring, but it would take some time and trouble.

691 COMPLAINANT'S EXHIBIT BLUME LETTER. Sept. 24th, 1887. A. A. Paxson, Notary Public.

Office of Willam Blume, manufacturer of carriages, phætons, buggies, sleighs, &c.

SCRANTON, PA., *July* 29, 1879.

Mr. Henry Timken.

DEAR SIR: Enclosed find check for your bill of springs of July 1st, less 5 per cent. off, leaving $20.60.

Please send me another set of springs, No. 3, for two-seater, same size every way as the set sent July 1st; need not send spring barrs. Would like to have them soon, if possible.

Yours respectfully, WM. BLUME.

COMPLAINANT'S EXHIBIT STICKLE LETTER. Sept. 24th, 1887. A. A. Paxson, Notary Public.

Office of Terre Haute Carriage Co., manufacturers of all grades of carriage-work.

TERRE HAUTE, *March* 18*th*, 1887.

Mr. Henry Timken.

DEAR SIR: Enclosed find claims of my improvement in vehicle springs. Laying aside the difference of opinion existing
692 between us upon my spring infringing yours, state what price per set you would accept to allow my spring to go on the market without any further controversy.

Yours respectfully, WM. H. STICKLE,
Terre Haute, Ind.

COMPLAINANT'S EXHIBIT JOSEPH W. BUCHANAN'S LETTER. Sept. 24, 1887. A. A. Paxson, Notary Public.

James M. Buchanan & Bro., manufacturers of road plows and wagons.

INDIANAPOLIS, IND., *April* 29, 1884.

Mr. Henry Timken, St. Louis, Mo.

DEAR SIR: I rec'd you- letter of 23d. Contents noted. Will give you facts as far as I can in regard to Timken springs. In February, 1878, I succeeded in trading with Mr. S. E. Kierolf, of this city, for a buggy, which had springs on it similar, if not exactly like, the Timken spring, and I think said Mr. S. E. Kierolf had said buggy in his shop over one year before we succeeded in making the trade. The peculiar kind of spring being new to me, I did not like to risk them, and Mr. Kierolf told me to give them a trial, and if they would not do, he would replace them; but, to my surprise, they did exceedingly (cut) well. The principle of the spring is the same as Timken.

Hoping this is the information desired, I am, yours truly,
JOSEPH W. BUCHANAN.

693 COMPLAINANT'S EXHIBIT BLUME'S LETTER No. 2. Sept. 24, 1887. A. A. Paxson, Notary Public.

Scranton Buggy and Wagon Co., Limited, sole manufacturers of Blume's patent flexible-gear buggies.

SCRANTON, PA., *May 18th*, 1887.

Henry Timken.

DEAR SIR: I have seen buggies with spring like Timken pat. I think in 1876, made by a young man named D. B. Ruple; he used a set of Concord springs cut in two and run them from opposite sill to side bar. I made a buggy with set of springs he furnished me, either in the fall of 1876 or early in 1877. The springs were exactly like yours, only not having as much bend near the side bars. I think the same buggy is still in use at Wilkesbarre, Pa. Made several about that time, for which me made the springs ourselves by cutting the ordinary side springs in two. Would not be positive as to date, but think it was in the spring of 1877.

Yours respectfully, WM. BLUME.

T. F. WILLS,
Notary Public.

June 13, 1887.

694 COMPLAINANT'S EXHIBIT KIEROLF LETTER. Sept. 24, 1887. A. A. Paxson, Notary Public.

INDIANAPOLIS, *March 5th*, 1881.

Mr. Henry Timken, St. Louis, Mo.

SIR: My attention has been called to a "side-bar" spring patented by you on the 27th of Nov., 1877, and bearing the name of the "Timken spring."

I wish to state to you that I did invent, and manufacture and put into successful use in this city, the self-same spring in the spring and summer of 1877. I made the invention in the winter of '76–'7, but built the first buggy with my cross-springs the following spring. The same buggy is still in use in this city.

I have six or eight witnesses to these facts. I am not thoroughly acquainted with the laws bearing on this matter: neither have I yet obtained counsel in regard to it; but I would like to hear from you in regard to it, so as to definitely understand the priority of our claims to the invention.

Would be glad to hear from you soon.

Most respectfully, etc., S. E. KIEROLF,
240 *East Pearl St., Indianapolis, Ind.*

DAVID S. OLIVER,
Notary Public.

(Endorsed:) David S. Oliver, notary public.

INDIANAPOLIS, *Oct.* 15, '81.

Mr. Henry Timken, St. Louis, Mo.

SIR: I have written several letters to you in regard to what I claim an interest in the original invention of what is known as the "Timken spring," and you have not so much as extended to
695 me the common courtesy existing between gentlemen, by recognizing the receipt of the same.

I have written these letters because I did not desire (if possible) to damage your interest in the royalty you receive from the patent you obtained on said invention.

I have some rights guaranteed to me, which the patent laws cannot dispos-ess me of (*i. e.*) the right to manufaeture and vend my own invention, and if I should so determine, it might materially damage your interests.

I hope to hear from you soon in answer to this, if not I shall undertake to do the best I can, and abide the result.

I have ample proof of time, &c., from honorable persons, and am willing to compromise on reasonable terms if I make satisfactory proof of what I claim.

I remain most respt. &c.,

S. EMANUEL KIEROLF.

240 E. Pearl St.

COMPLAINANT'S PRIEST'S EXHIBIT. David S. Oliver, Notary Public, Hamilton County, Ohio.

1881 Gross Point Sept 27
Mr Timken

Dear Sir

I recived yours of Sept 13 now sir this is as neer the stil as I can mak

thes springs cross one a nother the sam as your
thay shakel to the body = sill & bars rest on cnter of bar
696 in body they ar hilt ther by a tuhede bolt passing betven them & (body stil of bolt L spring bar now sir the last buggy I mad of this stil wos in 1873 July 2 sold it to Pontif Gyan Gross Point wan Co Mich

I hav sold one to T. Venn Detroit one to Alonzo Rolf Detroit one to Dr Drak dont now wer he is

soon after I mad the last buggy I left the sittey and cariag bisssns you will skeus me for not ritin be for

I, hav ben a way throm hom

Mr Timken

you can enquyar a bout thes buggy of Mr L Richely cariag maker of Detroit I, hav reciv a letter throm Mr L & M Woodhall of Dayton Ohio enquiring a bout the cross spring I will anser the letter after I, her throm you I shod lik to put my spring in the morket if I do it will spoil both our intrest in the spring

hop to her throm

you soon

yours most Obee

Joram Priest.

TIMKEN
vs.
OLIN.

COMPLAINANT'S PRIEST'S EXHIBIT 4. David S. Oliver, Notary Public, Hamilton County, Ohio.

GROSS POINT WAN CO MICH

Sept 3 1881

Mr Henry Timkon Esq

Dear Sir

I am informed that you ar the patentee of the timkon spring which patent wos obtained by you in the year 1877 I 697 beg to inform you that precisely the sam kind of spring in every mioute respect wos mad and sold by me in year 1873 and whish springs ar now to be seen and in use in my on neighbood mad and sold by me at that perticular tim 1873
undestandin that you hav an extensiv sal for the sam timkon springs I am entitled to consideratin at your hands and chould you feel disposed and willing to enter in to eenegohartins with me I will cordly do so hoping it would result satisfactorily to both porteis as I enteatan the poiority of claim to the invention rests with me hoping to hear from you soon in regard to the matter

I Remain

yours Most Obee

Joram Priest

CASPER WIEGAND COMPLAINANT'S EXHIBIT No. 1. Philip A. Weaver, Notary Public.

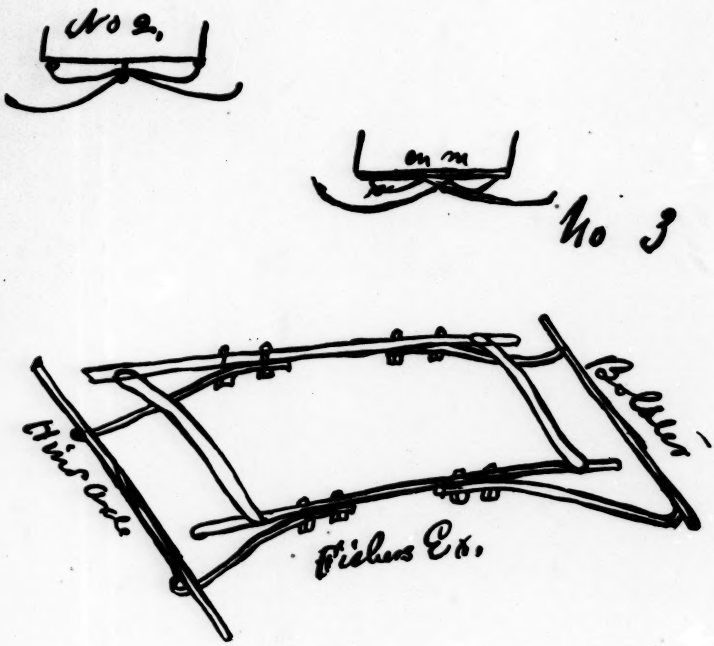
1874.

CASPER WIEGAND COMPLAINANT'S EXHIBIT No. 1. Philip A. Weaver, Notary Public.

698 COMPLAINANT'S EXHIBIT FISHER EXHIBIT No. 1. David S. Oliver, Notary Public, Hamilton Co., Ohio.

(Cut.)

COMPLAINANT'S PRIEST'S EXHIBIT No. 6. David S. Oliver, Notary Public.



699 COMPLAINANT'S EXHIBIT TIMKEN'S TRADE-MARK. Sept. 24, 1887. A. A. Paxson, Notary Public.

Return in five days to Henry Timken, 818 Pine street, St. Louis, Mo.

COMPLAINANT'S EXHIBIT WILLIAM LUCAS AND HENRY TIMKEN AGREEMENT. Sept. 24, 1887. A. A. Paxson, Notary Public.

Agreement between Wm. Lucas and Henry Timken.

This agreement, made and entered into this 23d day of November, 1876, between William Lucas and Henry Timken, both of St. Louis, Mo.: witnesseth, that said parties have agreed, and do hereby stipulate and agree, as follows, namely:

William Lucas agrees to build as speedily as practicable, having due regard to durability and safety, a four-story brick building suitable for a carriage factory, to be occupied as such by said Timken, according to the plans and specifications now in hands of James McGrath, architect, with such minor alterations or additions as may hereafter be agreed upon between the said parties, upon the lot of said Lucas, situated on the south side of St. Charles street,
700 about sixty feet west of Tenth street, said lot having a front on the south side of St. Charles street of about sixty-three feet, and adjoining the carriage factory lately occupied by Wesley Fallon; and said parties further agree that at the date of the completion of said building said parties will fully execute, in duplicate, a lease in the usual form, containing, among others, the following conditions, agreements and stipulations, that is to say:

Said Lucas will lease to said Timken the lot aforesaid, and the improvements thereon, for the term of ten years from said time, with a covenant for a further term of years after the expiration of said first term, upon conditions hereinafter named, said Timken to pay as rent the sum of seven hundred and twenty ($720) dollars per annum, this sum being agreed upon as the rental value of the said lot, irrespective of buildings (that is, six per cent. per annum upon $12,000), and 8 per centum per annum upon the actual amount expended or indebtedness incurred by said Lucas in erecting said building; the aggregate amount of said $720 and said 8 per cent. upon the expenditures incurred in erecting said building to be divided into 12 monthly equal payments, to be paid on the last days of each month during the continuance of said lease by said Timken as rent, and if not so paid after 30 days' default, said lease to be forfeited, at the option of said Lucas; said Timken is also to pay all taxes assessed against said lot and improvements during the continuance of said lease, and the renewal thereof, except special assessments or taxes for benefits. The conditions for renewal shall be the

same as above set forth as to rent, taxes and all other conditions except that as to the value of the lot, now fixed at $12,000; the said parties agree that if the actual value of said lot, at the expiration of said first term, cannot be agreed upon between the parties thereto, the same shall be fixed by two disinterested citizens and freeholders of the city of St. Louis, one of whom shall be chosen by each of said parties, and if said two cannot agree, they shall choose
701 a third citizen and disinterested freeholder, and the decision of two of said freeholders shall be binding upon both parties thereto, as to the value of said lot, without regard to improvements at said time, and six per cent. of the amount so ascertained shall be the amount of rent to be annually paid for said lot, irrespective of improvements, and in addition to the eight per cent. above stated for the said renewal term, said six per cent. to be in place of the $720, as above stated, for the first term. In case said building shall be destroyed by fire, said Timken shall not be bound to pay any rent until said building is rebuilt, and said Lucas agrees to rebuild same as soon as practicable after such a casualty.

In witness whereof, the parties have hereunto set their hands and seals, this 29th day of November, 1876.

WILLIAM LUCAS. [SEAL.]
HENRY TIMKEN. [SEAL.]

COMPLAINANT'S EXHIBIT PRIEST'S AFFIDAVIT. Sept. 30, 1887.
A. A. Paxson, Notary Public.

Preliminary Statement in an Interference of Patent Side-bar Buggy Springs of Joram Priest, Made upon his Application for a Patent for His Assignee.

CITY OF DETROIT, } ss:
State of Michigan, County of Wayne, }

Joram Priest, on his oath says, that he first conceived of the invention in side-bar carriage springs about the month of June, 1873; the invention was then, as shown in figure number one, signed by and made a part *by* this statement; it consisted of a spring made of two or more curves, bent down at or near the center, and
702 up at the ends, and made fast at one end with a bolt passing though the end of the spring and up through the sill, and the bent portion or curved portion at or near the center, rested on the under portion of the cross-bar nearer the end where the spring was attached to the sill, and was attached at the point where it touched or rested on the cross-bar to it by an ordinary clip-staple.

At each end of this spring there was but one leaf, but there were more leaves as you approached the fulcrum or the place where the spring pressed on the cross-bar, so that the heaviest part of the spring was at the fulcrum and the lightest portion was where the ends were. In no case did the leaves all run to the ends of the spring but were cut off or dropped as you approached the ends; until when it was reached, both next the side bar, and where it was

fastened or bolted to the sill, were there even more than one leaf to it, and I never built it in any other way.

In no case did I ever construct a spring that had not a space between the cross-bar and the spring, between the points where it was fastened to the sill and the point where it rested on its fulcrum, so that it could spring between these points.

It was the same in action as the one which I have applied for; that is, it was double-acting, and only differed from it in the position of the fulcrum and in bolting the one end to the sill instead of attaching it to the cross-bar.

I made a skeleton wagon for Thomas Ven, Detroit, June, 1873.

I made the next, the latter part of July, 1873, for a man who went to Chicago.

I next made two for A. Rolph, August, 1879.

These were all the same except the fulcrum was moved a little closer to the center and so I continued till I got the fulcrum in the center of the body, making four in number, when I took out this tea clip, and removed the fulcrum to the center of the cross-bar and connected them to it by a T bolt which held both of
703 them. The crown of the springs were then opposite each other, and were held to the cross-bar by a common T bolt.

I made two of these, one, 1874, about August, the other one was July, 1875. Then I quit business and have made none since.

These as shown by the two annexed drawings which I have signed and marked respectively Exhibit 1, and 2, correctly represent the only two ways in which I ever made the cross-bar springs.

JORAM PRIEST.

STATE OF MICHIGAN, } ss:
County of Wayne, }

Personally appeared before me the undersigned a notary public, in and for Wayne county, Joram Priest, the party who signed the foregoing instrument and acknowledged the execution thereof, to be his free act and deed, this 20th day of December, 1881.

FRED GUENTHER,

[SEAL.] *Notary Public in and for Wayne County, Mich.*

STATE OF MICHIGAN, }
County of Wayne. }

Sworn to and subscribed before me, this 20th day of December, 1881.

FRED GUENTHER,

[SEAL.] *Notary Public in and for Wayne County, Michigan.*

704 EXHIBIT 2, FIG. 2.

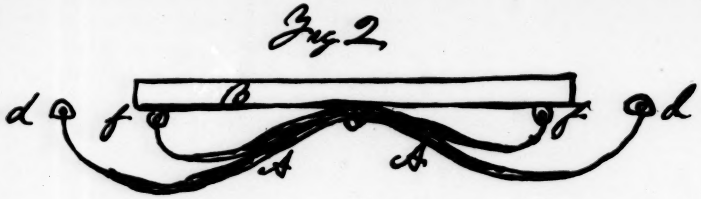


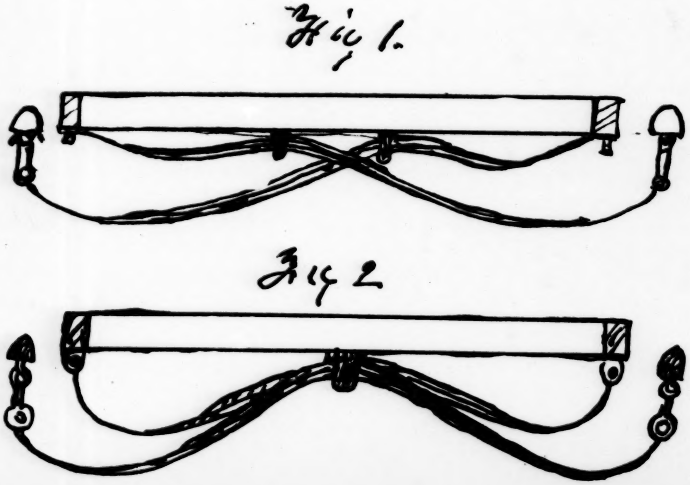
EXHIBIT 1, FIG. 1.

These are drawings referred to as exhibits in my affidavit of this 20th day of December, 1881, and I sign them as such and make them a part of said affidavit.

JORAM PRIEST.

705 TIMKEN } vs. OLIN. }

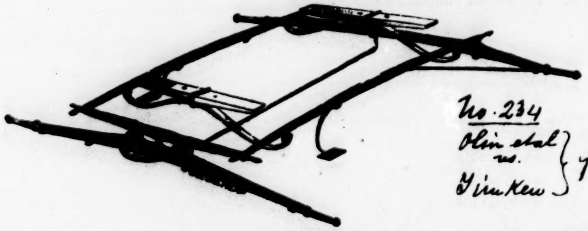
COMPLAINANT'S PRIEST'S EXHIBIT 5. David S. Oliver, Notary Public.



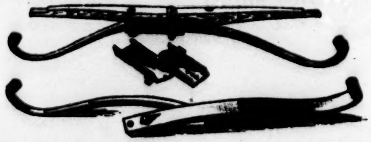
OLIN'S COMBINATION SPRINGS

(Formerly STICKLE'S Combination Spring.)

FOR SIDE-BAR VEHICLES.



No. 234
Olin et al
vs.
Hinkley } 707½



T. D. OLIN & CO.,

Sole Owners,

Send for Circulars. TERRE HAUTE, IND.

ESPECIAL POINTS OF MERIT:

1st.—Easy adjustment to all sizes of gearing or body having a variation of four inches from standard sizes.

2d.—Simplicity of application, as all springs are mounted before shipment from our factory.

3d.—By the manner of attaching crab in center, we avoid all forward and rolling motion.

4th.—Less liable to breakage, as there is no flexible strain near any bolt holes.

PRICE-LIST.—Subject to Trade Discount.

No. 1,	¾ Wagon,	1¼	3 Leaf,	$7 00	No. 4,	Heavy Top Buggy, 1¼	3 and 4 Leaf, $9 00
No. 2,	Light Open Buggy,	1¼	3 and 4 Leaf,	8 00	No. 4½,	" " " 1¾	" 10 00
No. 3,	" Top "	1¼	"	9 00	No. 5,	4 Passenger Wagon, 1½	4 and 5 Leaf, 12 00

No. 6, Surrey Wagon, 1½ 4 and 5 Leaf, $13 00

MOUNTED ON BARS, WITH SHACKLES.

Messrs. SMITH, SUTTON & CO., Pittsburgh, Pa., LICENSEES.

706 COMPLAINANT'S RAND'S SKETCH No. 2. John H. Thomas, Notary Public.

Time granted on 3d of August, 1887, till 1st of October, 1887, for plaintiff to take his rebuttal evidence.

COMPLAINANT'S EXHIBIT PRIEST'S APPLICATION. A. A. Paxson, N. P. Sept. 29, 1887.

Also patent of Joram Priest, issued to Appleton S. Bridges, assignee of Joram Priest, and the patents in suit heretofore introduced under stipulation, are not printed, for the reason that printed copies are on file in the case.

WM. M. ECCLES AND
WM. HUBBELL FISHER.
Solicitors and Counsellors for Complainant.

707 ST. LOUIS GLOBE DEMOCRAT EXHIBIT.

"COMPLAINANT'S EX. GLOBE DEMOCRAT, MARCH 10TH, 1878." Jan. 30th, 1888. A. A. Paxson, Notary Public.

Timken's Patent Springs.

Something new for side-bar vehicles.

ST. LOUIS, MO., *Jan.* 30, 1878.

Mr. Henry Timken.

DEAR SIR: Having had one of your patent-spring buggies in almost constant use, running in all parts of the city and suburbs for the last eighteen months, I can positively say that it is the most durable and easy-riding buggy that I have ever used.

Yours truly, JOHN M. SELLERS,
Composition Roofer, Office Southeast Corner Fourth and Market Streets.

(Here follows diagram marked p. 707½.)

709 UNITED STATES PATENT OFFICE.

HENRY TIMKEN, of St. Louis, Missouri.

Improvement in Carriage-springs.

Specification forming part of Letters Patent No. 197,689, dated November 27, 1877; application filed October 27, 1877.

To all whom it may concern:

Be it known that I, Henry Timken, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and valuable improvement in wagon-springs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

(Here follows diagram marked p. 708.)

Figure 1 of the drawing is a side view of a wagon-body with my wagon-spring attached. Fig. 2 is a bottom view of a wagon, showing my wagon-spring; and Fig. 3 is a sectional end view thereof.

My invention relates to buggy and wagon springs; and it consists in the attachment of springs to the bottom of the body at the sides, and crossing the bottom of the body, and connecting with the side bars on the opposite sides of the body, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the hind axle, and A′ the front axle, the latter having the usual head-block B. The hind axle A and head-block B are connected by side bars C C, in the usual manner. D represents the body of the vehicle.

The body D is connected to the side bars C C by means of two springs, G G, composed of one or more plates near each end. These springs are fastened to the under side of the body D at opposite sides. The springs then cross each other, and their ends are pivoted or hinged in clips I I, fastened to the opposite side bars, as shown.

By this construction and arrangement of the springs I secure length of springs and elasticity of motion, and at the same time hanging the body low.

What I claim as new, and desire to secure by letters patent, is—

In combination with the side bars C C and body D, the springs G G, attached to the under side of the body at opposite sides, then crossing each other, and connected to the side bars on opposite sides, substantially as herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY TIMKEN.

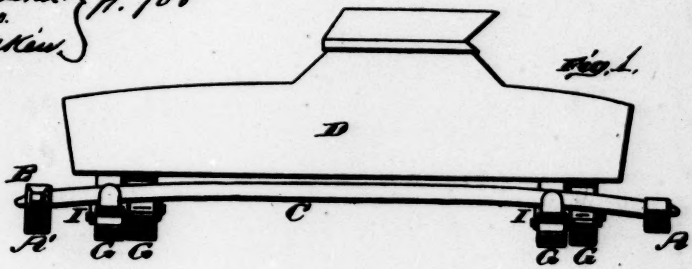
Witnesses:
M. JACOBS.
PETER BOWE.

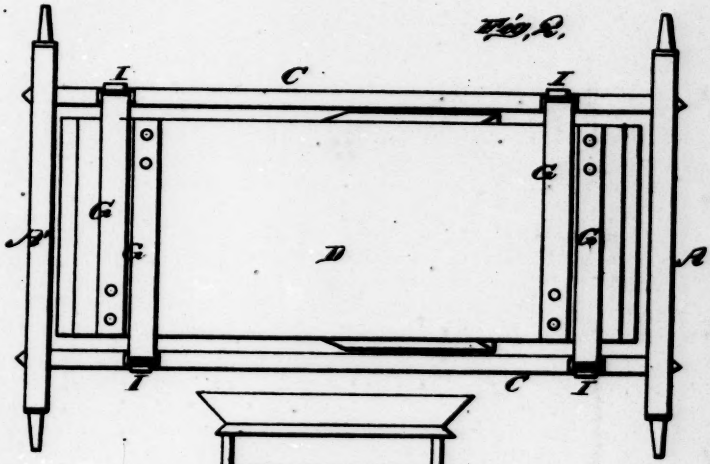
[Endorsed:] Letters patent issued to Henry Timken for carriage spring-. No. 197,689. Date, Nov. 27, 1877.

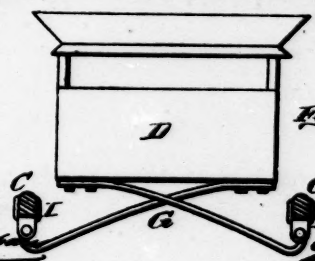
H. TIMKEN.
Carriage-Spring.

No. 197,689. Patented Nov. 27, 1877.

No. 234.
Olivetal.
v.
Timken
p. 708







WITNESSES
E. H. Bates
George E. Upham

INVENTOR.
Henry Timken.
Gilmore, Smith & Co.
ATTORNEYS.

(No Model.)

C. W. SALADEE.

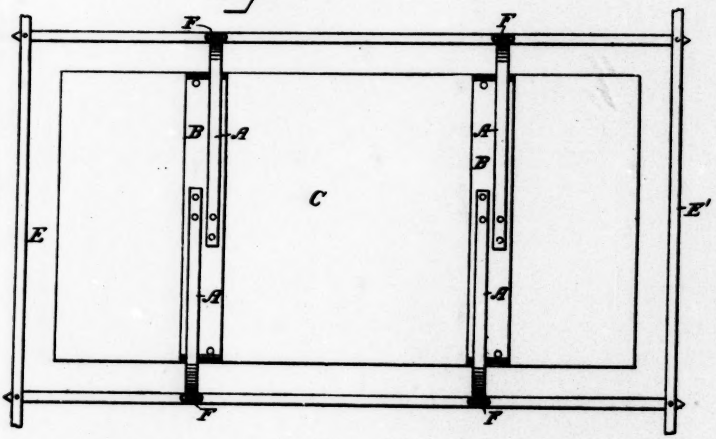
Road Wagon.

No. 239,850. Patented April 5, 1881.

No. 234
Olin et al.
v.
Timken.
p. 710

Fig. 1.

Fig. 2.



Attest:
Courtney A. Cooper
William Paxton

C. W. Saladee
By his attorney
Charles E. Foster

711 COMPLAINANT'S EXHIBIT SALADEE PATENT.

UNITED STATES PATENT OFFICE.

CYRUS W. SALADEE, of Wolcottville, Connecticut.

Road-wagon.

Specification forming part of Letters Patent No. 239,850, dated April 5, 1881; application filed February 7, 1881. (No model.)

To all whom it may concern:

Be it known that I, Cyrus W. Saladee, of Wolcottville, Litchfield county, Connecticut, have invented certain improvements in road-wagons, of which the following is a specification:

My invention relates to spring-supports for vehicles, wagon-seats, and for other purposes; and it consists of flexion-springs the inner ends of which terminate at and are attached to the bottom of the body, seat, or other object which they are to support at or near its center, and their outer ends are connected to the side bars or frame on opposite sides.

The advantages I claim for the novel arrangement and combination are, first, owing to the peculiar form and arrangement of springs, they will automatically adjust themselves to the weight imposed; and, second, that by reason of the inner or heavy ends of the springs terminating near the center of the body, in place of the springs crossing each other and being extended and attached to the opposite sides of the body, as heretofore, the requisite motion and carrying capacity are secured with about one-third less steel, thereby securing a spring-platform light in weight, while possessing the requisite strength and ease of motion.

(Here follows diagram marked p. 710.)

In the drawings, figure 1 is an end view, part in section, and Fig. 2 is an inverted plan, of so much of a side-bar road-wagon as is necessary to illustrate my invention.

A A represent the springs; B, the cross-bar or bottom of the body C; D, the side bars or frame; E E′, front and rear axles, and F the shackle-joint connecting the outer ends of the springs to the side bars or frame.

The springs A are made each of one or more plates, and are bent to form the double curves shown in Fig. I. Their inner and heavier ends are firmly and rigidly secured to the cross-piece B at or near the center of the body, and their outer ends are connected to the side bars or other frame by the shackles F. It will now be seen by reference to Fig. 1 that as the load is increased in the body C the central curved portions are flattened and the end curved portions bent outward, securing a double spring action. When these springs are used for supporting a wagon-seat, B will represent the bottom

of the seat, the springs being connected at their outer ends to suitable brackets secured to the sides of the wagon-body in shackle-joints. The inner ends of the springs being centrally connected to the body, one end alongside of the other, Fig. 2, the flexible portion is that between the center of the body and the side bar, while the spring is but little longer and the body well balanced. The chief advantage, however, is in the resistance offered by one spring of each pair to any weight upon the opposite side of the body, the tendency in such case to tilt the body at one side being resisted by the upward thrust against the side bars through the outer curved portion of the spring at the opposite side, which portion will be merely flattened a little, affording an easy motion to the body without permitting it to sag to any material extent.

This platform may be used for any purpose to which it is applicable.

I claim—

A spring-platform consisting of flexion-springs arranged in pairs, the inner heavier ends of each pair being connected side by side to the central portion of the body or object supported, and the flexion portion of each spring curving downward from the center and then upward to its connection with the frame, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CYRUS W. SALADEE.

Witnesses:

CHARLES E. FOSTER.
WILLIAM PAXTON.

[Endorsed:] C. W. Saladee. 239,850. Apr. 5, '81. Road-wagon.

J. TILTON.

Springs for Vehicles.

No. 157,430. Patented Dec. 1, 1874

Fig. 1.

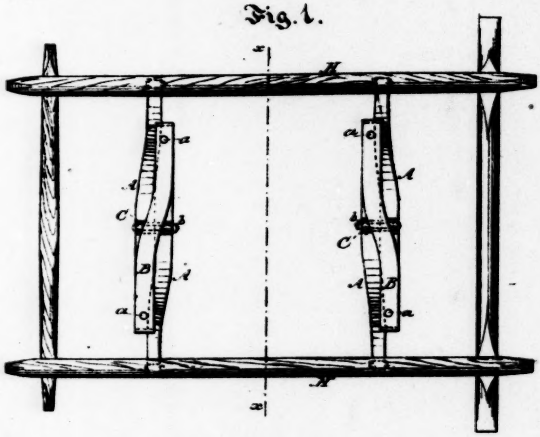
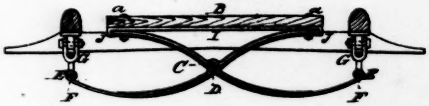


Fig. 2.



No. 234, Olmsted } D. 712
v. Timken.

Fig. 3.

Witnesses:
A. H. Norris
D. L. Coombs

Inventor:
Joseph Tilton.
By James L. Norris.
Atty.

713 UNITED STATES PATENT OFFICE.

JOSEPH TILTON, of New York, N. Y., assignor of one-half his right to Rufus M. Stivers, of same place.

Improvement in Springs for Vehicles.

Specification forming part of Letters Patent No. 157,430, dated December 1, 1874; application filed November 25, 1874.

To all whom it may concern:

Be it known that I, Joseph Tilton, of the city, county, and State of New York, have invented certain improvements in springs for vehicles, of which the following is a specification:

The object of the present invention is to provide springs designed especially for buggies, carriages, and other light vehicles, which shall obviate all rocking motion of the body supported thereon, and cause the latter to be always maintained in a horizontal position when moving up or down, or when in a stationary position.

The invention consists in the employment of two independent crossed-leaf metal springs, the ends of which are rigidly secured to the opposite ends of the cross-bar supporting the vehicle-body, each spring being formed or provided with a socket, and the two sockets meeting each other at the center of the body-supporting bar, so as to enable an axis or pivot bolt to be passed through both sockets, for enabling the springs to turn thereon when the body is elevated or depressed. The invention further consists in securing a bearing and re-enforcing plate of metal to the under side of the body-supporting bar, said plate being provided with pendent flanges at both ends, to serve as bearing-points for the ends of the springs, in order to prevent any lateral movement of the same, and to serve, in connection with fastening-bolts, to securely hold the springs in place.

(Here follows diagram marked p. 712.)

In the accompanying drawings, figure 1 is a top or plan view, representing my improved spring attached to the side sills of the platform-gear. Fig. 2 is a transverse section of the same, taken on the line *x x*, Fig. 1. Fig. 3 is a top or plan view of the springs crossed and pivoted together, their supporting-bar being removed.

It is well known that elliptic or semi-elliptic springs, secured to the center of the cross-bar supporting a carriage-body, will permit the same to rock from side to side, which is objectionable for various reasons.

I propose to maintain a buggy, carriage, and other vehicle body always in a horizontal position in respect to the springs and running-gear, and this is accomplished by employing a pair of springs, A A, which may properly be termed sections of semi-elliptic springs. The springs are arranged to cross each other at the center of the cross-bar B, upon which the carriage-body is placed, and their ele-

vated or upper ends are permanently secured at the opposite ends of said cross-bars by means of bolts and nuts *a*. Each spring is provided with a socket, *c*, at the crossing-point, and through said sockets, which are thus brought in line with each other, an axis or pivot bolt, D, is passed. A nut, *b*, is applied to the screw-threaded projecting end of the bolt for securing the same in place. Each spring is generally formed of two or more leaves—a long lower leaf and a shorter upper leaf—this construction being resorted to in order to obtain greater strength, and to enable the socket C to be more readily formed.

When two leaves are employed the socket is made by bending the upper leaf so as to form a semicircular or curved portion, and then, by applying the other leaf, a complete closed socket for the axis-pin is provided. The socket can also be made by dispensing with one leaf and welding or riveting a short piece over the curved or semicircular seat portion.

It is evident that a semicircular socket may be formed in each leaf, so that when brought together a circular socket or seat will be formed, in either case not impairing the strength, beauty, or finish of the spring.

In order to prevent the separation of the leaves at the point where the socket is located there should be inserted through both leaves, on each side of the socket, one or more rivets, so as to enable the spring to resist the strain to which it is subjected at this point. The end of the longer leaf of each spring is provided with an eye, E, through which passes a suspension-bolt, F, fitted in the lower portion of a double shackle or clip, G. Said shackle is secured to the longitudinal side sill or bar H of the running-gear in any approved way. The crossed position of the springs, in respect to the body-supporting bar B, is effected by curving said bar in the center so as to cause its ends to be out of line with each other. The springs can thus be arranged side by side, and be bolted to the ends of the bar.

713½

A straight bar can also be employed; but, in this instance, the springs must be cut away, or provided with notched contiguous edges, to enable them to be fitted in this manner. The lower ends of the springs having the eyes are brought in a direct line with each other by bending the outer portions of the springs toward each other, or in opposite directions. The object of having the ends of the springs in line is to enable them to be attached, directly opposite each other, to the side sills, which adds to the appearance or finish of the vehicle having my springs applied thereto. The ends of the springs need not necessarily be in line with each other, and, when so arranged, bending is obviated, as they can be made perfectly straight.

A metallic re-enforcing and bearing plate, I, is secured to the under side of the carriage-body-supporting bar, said plate being provided with pendent flanges J at its sides. The bolts securing the springs to the cross-bar are located at a short distance from said flanges, and the ends of the springs which project beyond the bolts bear against the flanges, the latter serving thus as bearings or stops

for preventing any possible endwise motion of the springs; also, as a medium for relieving the spring-attaching bolts from excessive strain. The crossed springs, arranged as shown, enable the carriage-body to move up and down at all times without affecting its horizontal position in the least, for, no matter where the weight predominates, both springs will move in unison with each other, thus obviating the objectionable rocking motion in carriages having the ordinary springs.

In most instances, and especially in vehicles constructed for light road purposes, it is intended to have the side sills, to which the springs are attached, connect with or rest upon the bolsters, though it is apparent that in that class of wagons designed for transporting heavy weights the side sills should rest upon suitable front and rear transverse springs, in which case the end springs will take off the greater portion of the jars and concussions.

What I claim is—

1. The combination of two springs, each composed of one or more leaves, and hinged together at their crossing-point, and provided with an eye at one end to connect with the side sills of the running-gear, and at the other end connected with the cross-bar for supporting the body of the vehicle, substantially as described.

2. The two leaf-springs, each provided with a socket at their crossing-point, in combination with a pivot or axis bolt, substantially as described.

3. The combination of two springs side by side, and connected together, with the side sills and cross-bar, for supporting the body in a horizontal position between the side sills, substantially as described.

4. The re-enforcing and bearing plate I, having end flanges, in combination with the body-supporting bar and the connected cross-springs, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 24th day of November, 1874.

JOSEPH TILTON. [L. S.]

Witnesses:

D. P. JANNINS, JR.

GEO. E. W. STIVERS.

715 UNITED STATES PATENT OFFICE.

JOSEPH TILTON, of New York, N. Y., assignor of one-half to Rufus M. Stivers, of same place.

Spring for Vehicles.

Specification forming part of reissued Letters Patent No. 9542, dated January 25, 1881. Original No. 157,430, dated December 1, 1874. Application for reissue filed November 27, 1880.

To all whom it may concern:

Be it known that I, Joseph Tilton, of the city, county and State of New York, have invented certain improvements in springs for vehicles, of which the following is a specification.

The object of the present invention is to provide springs designed especially for buggies, carriages, and other light vehicles, which shall obviate all rocking motion of the body supported thereon and cause the latter to be always maintained in a horizontal position when moving up or down or when in a stationary position.

The invention consists in the employment of two independent crossed leaf-metal springs, the ends of which are rigidly secured to the opposite ends of a cross-piece attached to the body, each spring preferably being formed or provided with a socket, and the two sockets meeting each other at the center of the cross-piece attached to the body so as to enable an axis or pivot-bolt to be passed through both sockets for enabling the springs to turn thereon when the body is elevated or depressed.

The invention further consists in securing a bearing and re-enforcing plate of metal to the under side of the cross-piece attached to the body, said plate being provided with pendent flanges at both ends to serve as bearing-points for the ends of the springs in order to prevent any lateral movement of the same, and to serve, in connection with fastening bolts, to securely hold the springs in place.

(Here follows diagram marked p. 714.)

In the accompanying drawings, figure 1 is a top or plan view, representing my improved spring attached to the side sills of the platform-gear. Fig. 2 is a transverse section of the same, taken on the line *x x*, Fig. 1. Fig. 3 is a top or plan view of the springs crossed and pivoted together, their cross-piece being removed.

It is well known that elliptic or semi-elliptic springs secured to the center of the cross-piece attached to a carriage-body will permit the same to rock from side to side, which is objectionable for various reasons.

I propose to maintain a buggy, carriage, or other vehicle body always in a horizontal position in respect to the springs and running-gear, and this is accomplished by employing a pair of springs, A A, which may properly be termed "sections of semi-elliptic

J. TILTON,
Assignor of one-half to R. M. Stivers.

Spring for Vehicles.

No. 9,542. Reissued Jan. 25, 1881.

No. 234
Olin et al.
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p. 714

Fig. 1.

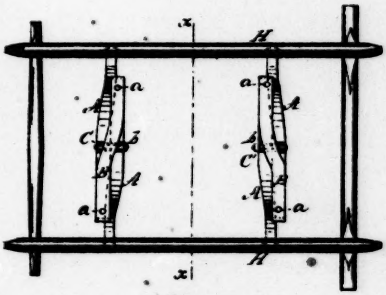
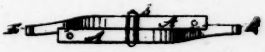


Fig. 2.

Fig. 3.



WITNESSES:
John Blake
Livingston Gifford

INVENTOR:
Joseph Tilton
BY Gifford & Gifford
ATTORNEYS.

springs." The springs are arranged to cross each other at the center of the cross-piece B, attached to the carriage-body, and their elevated or upper ends are permanently secured, at the opposite ends of said cross-piece, by means of bolts and nuts *a*. Each spring is preferably provided with a socket, C, at the crossing-point, and through said sockets, which are thus brought in a line with each other, an axis or pivot bolt, B, is passed. A nut, *b*, is applied to the screw-threaded projecting end of the bolt for securing the same in place. Each spring is generally formed of two or more leaves—a long lower leaf and a shorter upper leaf—this construction being resorted to in order to obtain greater strength, and to enable the socket C to be more readily formed.

When two leaves are employed the socket is made by bending the upper leaf so as to form a semicircular or curved portion, and then, by applying the other leaf, a complete closed socket for the axis-pin is provided. The socket can also be made by dispensing with one leaf and welding or riveting a short piece over the curved or semicircular seat portion.

It is evident that a semicircular socket may be formed in each leaf, so that when brought together a circular socket or seat will be formed, in either case not impairing the strength, beauty, or finish of the spring.

In order to prevent the separation of the leaves at the point where the socket is located there should be inserted through both leaves, on each side of the socket, one or more rivets, so as to enable the spring to resist the strain to which it is subjected at this point. The end of the longer leaf of each spring is provided with an eye, E, through which passes a suspension-bolt, F, fitted in the lower portion of a double shackle or clip, G. Said shackle is secured to the longitudinal side sill or bar, H, of the running gear in any approved way. The crossed position of the springs in respect to said cross-piece B may be effected by curving said piece in the center, so as to cause its ends to be out of line with each other. The springs
715½ can thus be arranged side by side, and be bolted to the ends of the piece. A straight piece can also be employed, and, in this instance, the spring may be cut away or provided with notched contiguous edges, to enable them to be fitted in this manner. The lower ends of the springs having the eyes may be brought in a direct line with each other by bending the outer portions of the springs toward each other or in opposite directions. The object of having the ends of the springs in line is to enable them to be attached, directly opposite each other, to the side sills, which adds to the appearance or finish of the vehicle having my springs applied thereto. The ends of the springs need not necessarily be in line with each other, and, when so arranged, bending is obviated, as they can be made perfectly straight.

A metallic re-enforcing plate, I, is secured to the under side of the said cross-piece B, said plate being provided with pendent flanges J at its sides. The bolts securing the springs to the cross-piece are located at a short distance from said flanges, and the ends of the springs which project beyond the bolts bear against the flanges, the

latter serving thus as bearings or stops for preventing any possible endwise motion of the springs, also as a medium for relieving the spring-attaching bolts from excessive strain. The crossed springs, arranged as shown, enable the carriage-body to move up and down at all times without affecting its horizontal position in the least, for, no matter where the weight predominates, both springs will move in unison with each other, thus obviating the objectionable rocking motion in carriages having the ordinary springs.

In most instances, and especially in vehicles constructed for light road purposes, it is intended to have the side sills to which the springs are attached connected with or rest upon bolsters, though it is apparent that in that class of wagons designed for transporting heavy weights the side sills should rest upon suitable front and rear transverse springs, in which case the end springs will take off the greater portion of the jars and concussions.

What I claim is—

1. The combination of two springs, each composed of one or more leaves, and hinged together at their crossing-point and provided with an eye at one end to connect with the side sills of the running-gear, and at the other end connected with the cross-piece attached to the body of the vehicle, substantially as described.

2. The two leaf-springs, each provided with a socket at their crossing-point, in combination with a pivot or axis-bolt, substantially as described.

3. The combination of two springs, side by side and connected together, with the side sills and cross-piece, for supporting the body in a horizontal position between the side sills, substantially as described.

4. The re-enforcing bearing-plate I, having end flanges, in combination with the cross-piece attached to the body and the connected cross-springs, substantially as described.

5. In combination with the body of a vehicle and the side sills or bars, the two springs crossing each other side by side and attached to a cross-piece, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 20th day of November, 1880.

JOSEPH TILTON. [L. S.]

Witnesses:

W. F. HAPGOOD.

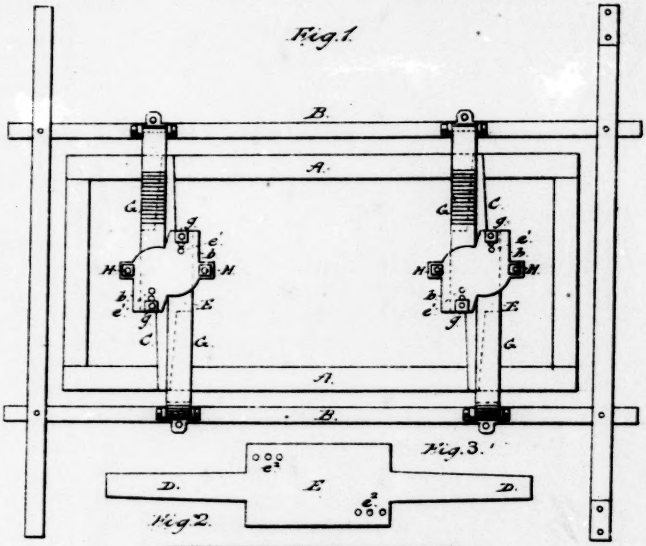
PHILIP J. O'REILLY.

W. H. STICKLE.

Assignor, by mesne assignments, to T. D. OLIN.

VEHICLE SPRING.

No. 10,372. Reissued Aug. 21, 1883.



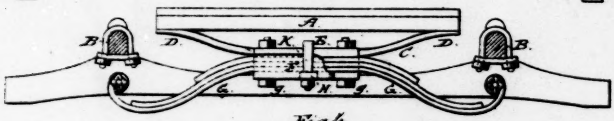
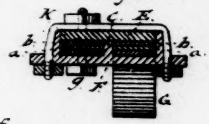


Fig. 4.



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Timken
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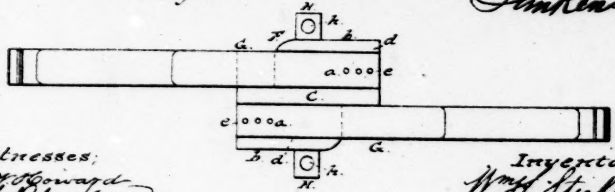
Fig. 5.



Witnesses;
W. W. Howard
J. H. Blackwood

Inventor;
Wm. H. Stickle
by W. H. Doolittle
Attorney.

716 UNITED STATES PATENT OFFICE.

WILLIAM H. STICKLE, of Terre Haute, Indiana, assignor, by mesne assignments, to Thomas D. Olin, of same place.

Vehicle-spring.

Specification forming part of Reissued Letters Patent No. 10372, dated August 21, 1883; original No. 246,571, dated August 30, 1881; application for reissue filed May 3, 1883.

To all whom it may concern:

Be it known that I, William H. Stickle, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented new and useful improvements in vehicle-springs, and have assigned all my right, title, and interest in the same to Thomas D. Olin, also a citizen of the United States, and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

(Here follows diagram marked p. 717.)

Figure 1 of the drawings is a representation of a bottom view of my invention. Fig. 2 is a cross-section. Fig. 3 is a plan view of the truss-bar or bearing. Fig. 4 is a cross-section through the crab, and Fig. 5 is a top view of same with truss-bar removed.

This invention has relation to vehicle-springs and attachments therefor; and it consists in the construction and novel arrangement, in connection with sectional springs, of a crab or coupling for the ends of the springs and a truss-bar or cross-bearing, whereby the springs are connected to the body-frame, all as hereinafter shown and described.

In the accompanying drawings, the letter A designates the sills of the body-frame of a buggy or other vehicle, and B B represent the side bars or end bearings, as the case may be, the illustration being especially designed to show the application of the invention with relation to a side-bar buggy.

C indicates the truss-bar or bearing, which is secured by its ends or arms D to the sills. The truss-bar is provided with a central bearing, E, of proper width to fit between the side flanges, *b*, of the crab or coupling F, in which the ends *a* of the sectional springs G are seated. This crab is provided with a central dividing-flange, *c*, between its side walls, separating two parallel seats, *d*, in which are placed the ends *a*, respectively, of springs which extend in opposite directions, as indicated in the drawings. The side flanges, *b*, are made of greater height than the center flange, *c*, so that the center bearing, E, of the truss-bar will be received neatly between said side flanges when the parts are secured together. The ends of the springs are provided with perforations *e*, and a series of perforations, *e'*, are

made through the bottom of the crab and through the center bearing, E, as indicated at e^2, said perforations serving for the passage of bolts *g*, whereby the ends of the springs are secured in position between said crab and center bearing. The perforations are arranged in series, so that the springs may be readily adjusted according to the width of the work in hand.

H H designate lugs extending from the crab at right angles with the spring-bearings, and perforated at *h* for the passage of the threaded ends of the clip K, which passes over the center bearing of the truss-bar, and is designed to secure the parts firmly together.

It may sometimes be advisable to form the central or dividing flange of the spring-bearing on the truss-bar instead of the crab; but the construction hereinbefore described is preferred.

The outer ends of the sectional springs may be connected to the side bars by means of shackles, in the ordinary manner.

Having described this invention, what I claim, and desire to secure by letters patent, is—

1. The combination, with sectional springs, of a crab or coupling for the ends of the springs, and a truss-bar or cross-bearing and a center bearing-clip for connecting the springs to the body-frame, substantially as described.

2. The crab F, having the side flanges, *b*, parallel seats *d*, the dividing-flange *c*, and perforations e', in combination with the truss-bar C, having perforations e^2, arms D, and center bearing, E, and the clip K, substantially as specified.

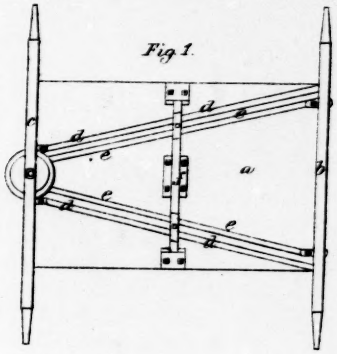
In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM H. STICKLE.
THOMAS D. OLIN.

Witnesses:
H. H. BOUDINOT.
JAMES D. BIGELOW.

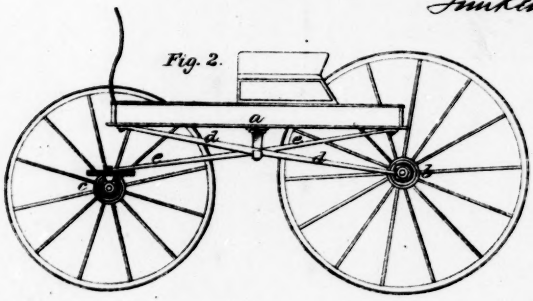
M. G. Hubbard.
Running Gear.
No. 7,796. Patented Nov. 26, 1850.

Fig. 1.



No. 234.
Oliver et al.
v.
Finken.
p. 718

Fig. 2.



Finken
vs
Oliver
718

Defendants Exhibit
Hubbard Patent no 7796
David S. Oliver
Notary Public

719 M. G. HUBBARD.

Improvements in Hanging Carriage Bodies.

Specification forming part of Letters Patent No. 7796, dated Nov. 26th, 1850.

In a former patent granted to me I claimed the combination of cross-reaches with a spring under the center of the carriage body; but while noticing the working of buggies constructed on this plan I have observed that much of the elasticity was due to the reaches themselves, though not made purposely elastic. Consequently it occurred to me that by making the cross-reaches elastic the center spring might be dispensed with and a non-elastic support substituted in its place. By this means I am enabled to construct the running gear of a carriage having the advantages of being thoroughly braced diagonally from the axles, possessing great elasticity, and effecting at the same time a great saving in the expense of construction.

(Here follows diagram marked p. 718.)

In the drawings (*a*) represents the body of the carriage, (*b*) the hind axle, and (*c*) the fore axle. The hind axle (*b*) is connected with the fore part of the buggy by two elastic reaches (*d*), which proceed from near the ends of the axle to points near the center of the fore end of the bottom of the carriage. Two other elastic reaches (*e*) proceed from the king bolt on the fore axle to the after corners of the body. At the center of the body underneath is a cross-piece (*f*), under which the elastic reaches pass, which serves to support the buggy from the center of the elastic reaches, the reaches, which are elastic throughout their length, being confined to the cross-piece (*f*) in such a manner that they shall have perfect freedom to bend, at the same time being secured so that they cannot
720 be thrown out of place by the motion of the carriage, and also having a slight freedom of motion in the direction of their length to allow of the bending of that part of the reach between its attachment to the carriage and the center support. Thus by only a slight bending of the reaches the buggy will rise and fall through considerable space, thereby imparting great ease of motion.

In some cases I use three, five, or more elastic reaches in place of four, as herein described, but arranged so as to produce similar effects.

Having thus fully described my improvements, what I claim as new therein and which I desire to secure by letters patent is the combination of elastic cross-reaches with a non-elastic center support, the reaches being so connected with the center support that they shall be free to bend throughout their length, substantially in the manner and for the purpose described.

M. G. HUBBARD.

Witnesses:
C. S. DAILEY.
L. B. JOHNSON.

A. C. W.; J. B. B.

722 $4.50, ac

M. G. HUBBARD.

Improvement in Hanging Carriage Bodies.

Specification forming part of Letters Patent No. 7085, dated Feb. 12, 1850.

The nature of my invention consists in the peculiar construction and arrangement of the reaches and in the application of a spring thereto by which the carriage is supported.

(Here follows diagram marked p. 721.)

The body of the carriage (*a*), the axles (*b*), and wheels are of ordinary construction. To the rear end of the carriage, near each corner, there is a bar or reach, (*c*), affixed. These extend forward and are firmly united over the front axle, to which they are jointed. At the front end of the carriage body two other bars (*d*) are jointed, which extend back to the hind axle. At or near the center of the body, where these reaches cross each other, they are connected by a shackle, (*e*), to which a semi-el-iptic spring, (*h*), is attached, the center of this spring bearing on the shackle and the two ends against the bottom of the carriage, the connections being those usual in attaching el-iptic springs. By this arrangement I obtain an elastic substantial connection between the axles and body of the carriage and cheapen its construction.

Having thus fully described my improvement, what I claim therein as new and for which I desire to secure letters patent is the combination of cross-reaches and spring, substantially in the manner and for the purpose set forth.

M. G. HUBBARD.

Witnesses:
WM. N. EMERSON.
E. A. SIGN.

A. C. W.; J. B. B.

M. G. HUBBARD.

Running-Gear.

No. 7,085. Patented Feb. 12, 1850.

No. 234.
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v.
Timken
p. 7, 21

Fig. 1.

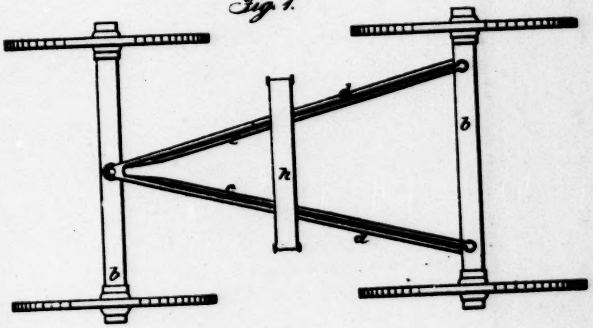
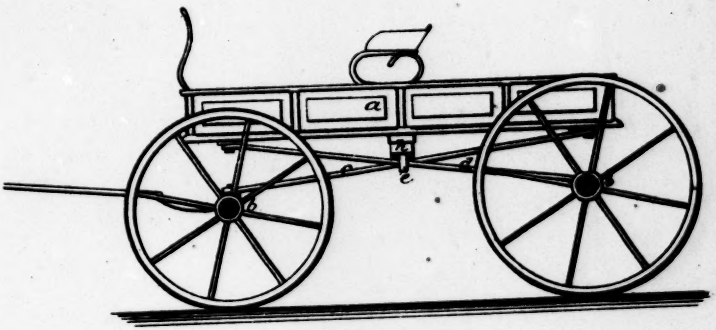


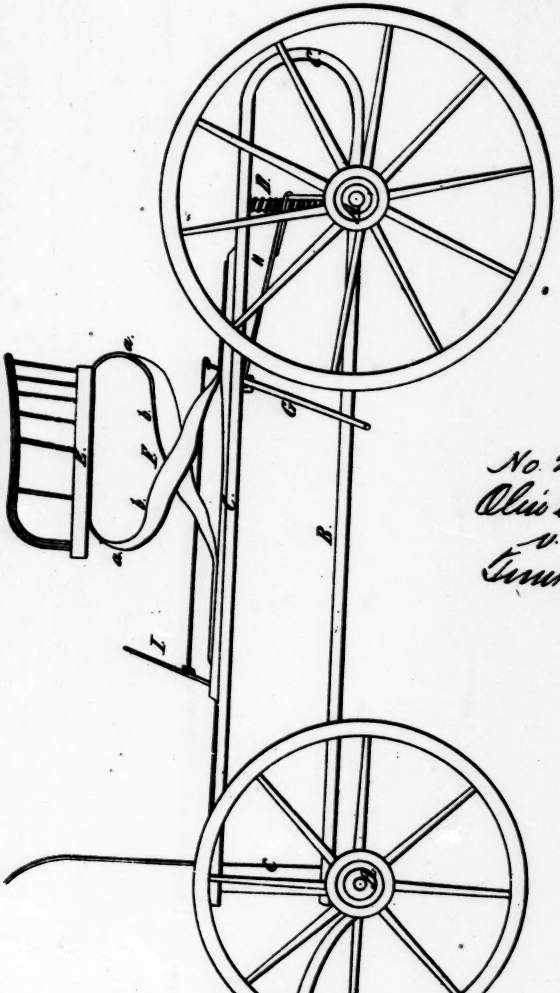
Fig. 2.



J. U. Fiester.

Carriage Spring.

No. 15,126. Patented Jun. 17. 1856.



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Olin et al.
v.
Emmken
p. 723

724 JOHN U. FIESTER.

Improved Carriage Springs.

Specification forming part of Letters Patent No. 15126, dated June 17, 1856.

To all whom it may concern:

Be it known that I, John U. Fiester, of Winchester, in the county of Guernsey and State of Ohio, have invented certain new and useful improvements in carriage springs, and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The drawing is a side view of my invention attached to a carriage.

(Here follows diagram marked p. 723.)

The nature of my invention consists in forming an elastic scroll-twisted elliptical curved spring for carriages of steel (or of wood for *com* purposes), being much lighter and cheaper than the elastic springs now in use.

In the construction of my improvement I have presented the same attached to a light buggy, in which A — the wheels; B, the connecting bar; C, the braces; E, the seat; F, the elastic scroll-twisted elliptical curved spring; *a*, the parts of the springs which elongate; *b*, the scroll-twisted parts of the springs, fitting together in somewhat of a screw form and at which point they slide past each other in their operation.

In the construction of my "coiled scroll-twisted spring" I construct it of steel of equal thickness and strength. I then give the spring a scroll twist, by which means I am able to give strength to it without increase of weight in the material.

725 In the operation of my improvement, having made the springs as before described (or I may find it practicable to make the springs out of wood for common purposes), I then fasten the ends of the springs to a piece of wood, and this piece of wood or iron bar is firmly fastened to the braces C C by means of bolts or clamps, and the seat is attached to the springs by means of screws; the springs are also made right and left to each other so that they will support each other by reason of the bevels or screw form which they possess constantly bracing each other as the weight is made to bear on them and thereby preventing too great a lateral motion. I find that the elasticity is equal to that of any spring in use.

It will be further seen that the ends of the springs are made stationary, not allowing them to slide; consequently when the weight is applied to the seat the springs are made to yield at the ends *a*, causing the springs at the scroll or bevel parts *b*, where they pass each other, to yield. It will be seen that at this point they have a

screw action in part, and as they are pressed together they slide past each other and yet retaining their proper position and allowing the elasticity of the springs to extend to the entire length of the same, thus giving to the springs a vertical and lateral action, which is continued until the springs are pressed together horizontally.

Having thus fully described the construction and operation of my invention, what I claim as new and desire to secure by letters patent is—

Forming elastic twisted springs with an elliptical curve for the purpose of giving to the same greater strength and elasticity,
726 and also a lateral and vertical motion, as herein set forth.

JOHN U. FIESTER.

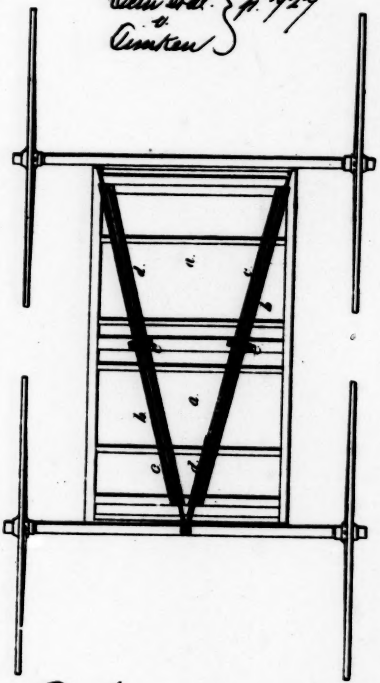
Witness-:
T. G. CLAYTON.
J. C. CLAYTON.

A. C. W.; J. B. B.

M.G. Hubbard. Sheet 2.
2 Sheets.
Carriage Spring.
No. 8,244. Patented Jul. 22, 1851.

No. 234.
Olin et al.
v.
Timken } p. 727

Fig. 2.



Timken
vs
Olin

Defendants Exhibit
Hubbard Patent no. 8244
David S. Oliver
Notary Public

M.G. Hubbard.

Carriage Spring.

No. 12,890. Patented May 15. 1855.

Fig. 2.

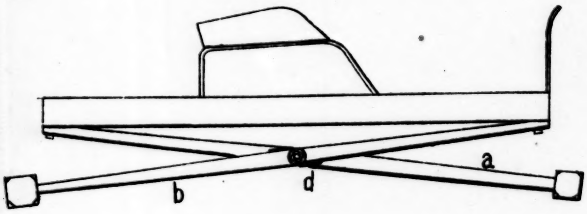


Fig. 3.

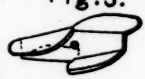
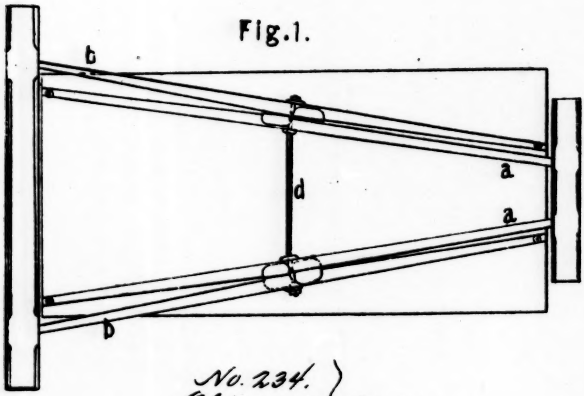


Fig. 1.



No. 234.
Olin et al.
v.
Finkew,
p. 730

Inventor:
M. G. Hubbard.

M. G. Hubbard. Sheet 2.
2 Sheets.
Carriage Spring.
No. 8,244. Patented Jul. 22, 1851.

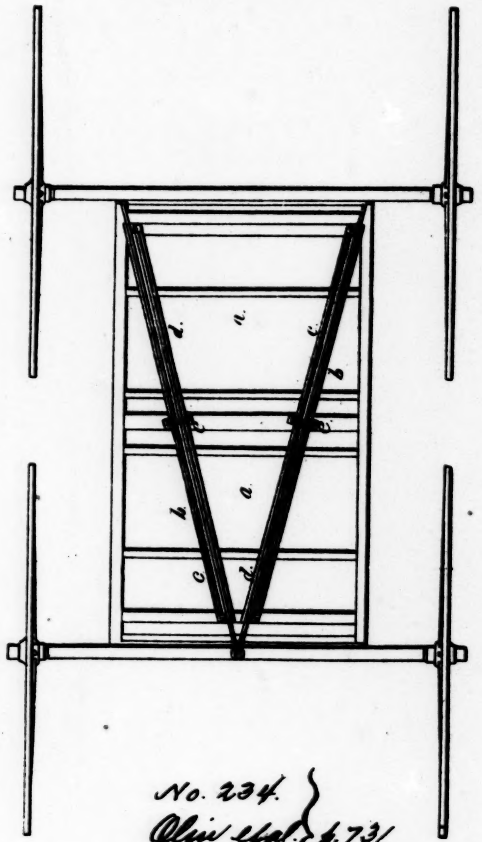


Fig. 2.

No. 234.
Olin et al. } 4.731
Franken }

M. G. Hubbard. Sheet 1.
2 Sheets.

Carriage Spring.

No. 8,244. Patented Jul. 22, 1851.

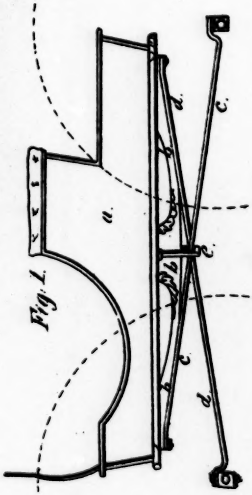


Fig. 1.

No. 234
Olin et al. } p. 732
" Finkum }

L. Bissell.

Carriage Spring.

No. 8,105. Patented May 20, 1851.

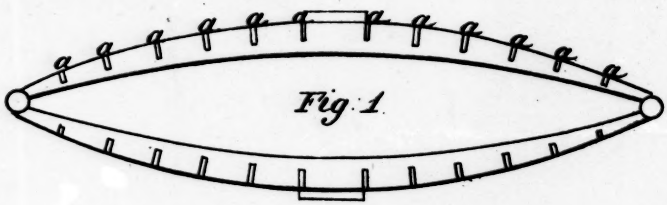


Fig: 1.

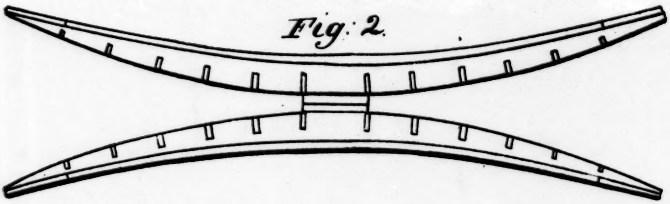


Fig: 2.

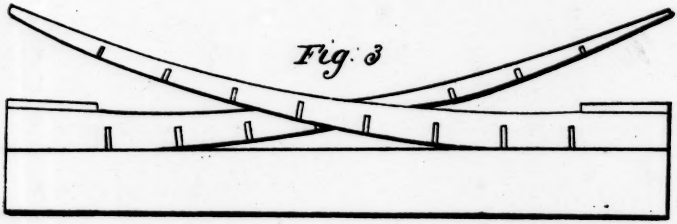


Fig: 3

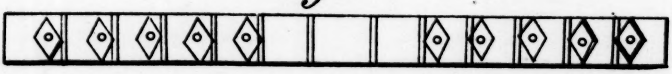


Fig: 4.

Fig: 5

No. 234
Olin et al.
v.
Funken
p. 733

G. W. LA BAW.

Carriage-Spring.

No. 34,549. Patented Feb. 25, 1862

Fig. 1

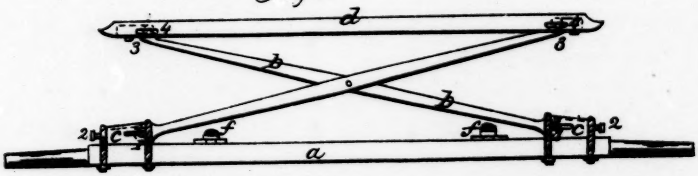


Fig. 2

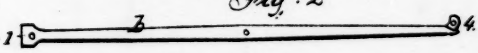


Fig. 3

Fig. 4

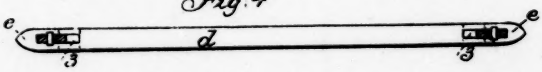
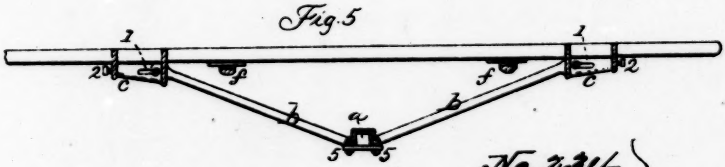


Fig. 5



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Alin et al.
v.
Finken
} p. 734

Witnesses
Lemuel W. Serrell
Thos Geo Harold

Inventor:
George W. La Baw

728 M. G. HUBBARD.

Improvement in Carriage Springs.

Specification forming part of Letters Patent No. 8244, dated July 22, 1851.

My improvement consists in forming a spring of a straight bar of steel of proper dimensions and equal thickness throughout, attaching it to the carriage so as to be compensating and self-adjusting to any weight that the carriage is capable of sustaining, by which means I form a durable, cheap, and efficient spring of great lightness that cannot be set or made to strike when brought entirely down to its bearings.

(Here follows diagram marked p. 727.)

The construction is as follows: The body of the carriage (*a*) is of any form, as the invention is equally applicable to a stage-coach or buggy. The bottom of the carriage is made convex, like a rocker, either by making a sunk bottom of that form or adding a piece of wood (*b*) for the purpose on each side of the carriage bottom. I then take two bars (*c*) of spring steel of equal dimensions throughout and of a size suitable for the service, or instead thereof wooden bars will answer the purpose. These bars are attached to the hind axle, one on each side, and, passing along under the rockers (*b*), which rest on them, extend up in an inclined direction to the body of the carriage in front, when each is firmly bolted. At its extreme forward end similar bars (*d*) are in like manner affixed to the hinder end of the carriage, and, passing along under the rocker (*b*) to the bolster forward and there also attached, making a spring reach, as in my former patent, but with this difference: That the bars as they are brought down by weight in the carriage bend around the curve of the rocker and gradually grow shorter, and of
729 course stronger, although the same size is maintained throughout, thereby getting rid of a great difficulty in construction, which I have found on properly tapering the spring reaches of my former patent. A long staple (*e*) is put around the springs at the center of the rocker to keep them in place and allow them sufficient play.

Having thus fully described my improved spring reaches for carriages, what I claim therein as new and for which I desire to secure letters patent is the combination of the rockers and spring bars of a carriage, substantially as herein set forth and for the purposes described.

M. G. HUBBARD.

Witnesses:
WM. GRAUNUGH.
DAVID ROOT.

A. C. W.; J. B. B.

(Here follow diagrams marked pp. 730 to 734, incl.)

735 UNITED STATES PATENT OFFICE.

SIDNEY STEWARD, of Trenton, New Jersey.

Letters Patent No. 108,649, dated October 25, 1870.

Improvement in Carriage-springs.

The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, Sidney Steward, of Trenton, in the county of Mercer and State of New Jersey, have invented a certain improvement in carriage-springs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing, making part of this specification, in which—

(Here follows diagram marked p. 736.)

Figure 1 is an elevation of my improved carriage-spring, showing its attachment to the axle.

Figures 2, 3, and 4 are plan views of the different parts constituting such spring.

The same letters are used in all the figures in the designation of identical parts.

This invention relates to springs for carriages and other vehicles; and

My improvement consists in attaching the ends of a semi-elliptic spring, upon the convex side of one or more of which the body of the vehicle is to be supported to the axle, by means of two diagonal spring-braces, the latter passing from the points of attachment to such semi-elliptic spring diagonally past each other to points near the journals of the axle, there to be secured, whereby the weight of the load will be transferred to the strongest points of such axle.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the annexed drawing—

H represents the semi-elliptic spring, composed, as usual, of plates of steel, the lower and longest one of which is hook-fashioned at its ends, and provided with perforated ears, to receive bolts, by which the spring-braces A and B are jointed to it.

Each spring-brace, which may also be composed of laminæ of steel, as shown, extends from the point of attachment to the semi-elliptic spring diagonally beyond the opposite end of the latter, and is secured to the axle C, near its journal, by means of a sleeve and set-screw, as shown, or in some other suitable manner, abutting endwise against the collar *a* on said axle.

In order that said spring-braces may pass each other, they are bent at the ends, as clearly indicated in Figs. 3 and 4.

S. STEWARD.

Carriage Spring.

No. 108,649. Patented Oct. 25, 1870.

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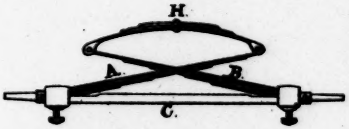
Tinken.
} p. 736

Fig. 1.



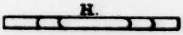


Fig. 2.

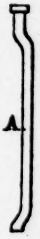


Fig. 3.

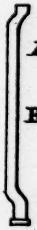


Fig. 4.

Witnesses.
J. S. Russell Jr.
James L. Taylor Jr.

Inventor.
Sidney Steward

What I claim as my invention, and desire to secure by letters patent, is—

The carriage-spring herein described, composed of the semi-elliptic spring H and diagonal spring-braces A and B, substantially as set forth.

In testimony whereof, I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

SIDNEY STEWARD.

Witnesses:

JOHN H. WHITAKER.
WOODBURY D. HOLT.

737 UNITED STATES PATENT OFFICE.

ANSON K. STONE, of Oronoco, Minnesota.

Improvement in Wheel-carriages.

Specification forming part of Letters Patent No. 63668, dated April 9, 1867.

To all persons to whom these presents shall come:

Be it known that I, Anson K. Stone, of Oronoco, in the county of Olmstead and State of Minnesota, have invented a new and useful improvement in wheel-carriages; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

(Here follow diagrams marked pp. 738 & 739.)

Figure 1 is a top view, and Fig. 2 a side elevation, of my invention as applied to the front and rear axles and the sweep-bar of a common pleasure-wagon.

In such drawings, A denotes the front axle, B the sweep-bar, and C the rear axle.

From the sweep-bar to the rear axle I extend two metallic arched springs, D D, they being arranged with respect to such sweep-bar and axle, and formed as exhibited in the figures. At or near their ends the said springs are to be bolted to the said bar and axle, and they may be further secured thereto by means of short braces *a a*, extending from each spring to the under side of the bar and axle. The wagon-body is to rest on the middles of the said two springs, to which it is to be fastened by bolts going through bearers *b b*.

To the under side of each axle, and at or near the middle thereof, two springs or elastic braces, *c c*, are bolted, they being extended obliquely and bolted to the two arched springs D D. Another elastic brace, *d*, is also secured to each of the arched springs at or near its middle, and is extended obliquely outward to and is fastened to the rear axle by one of two staples, *f f*, the arrangement of the aforementioned elastic braces being as represented in the drawings. The said elastic braces not only operate as springs to aid in giving support to the body of the carriage, but they serve to steady the main springs and carriage-body or prevent them from swaying laterally when the carriage may be in use.

I term my invention the "elastic gearing" for buggies or various other wagons. It has great advantages over the ordinary gearing or axle and spring connection. It is light, can be constructed at little expense, and causes the carriage to be very easy to persons when seated therein.

The elastic braces operate as an equalizer of pressure in this respect—that is, when one of the main springs is pressed downward by a force the braces tend to bring down the other spring, and thus

Sheet 1 - 2 Sheets

A. K. Stone.

Carriage Spring,

No. 63,668. Patented Apr. 9, 1867.

No. 234.
Olin et al.
&
Timken
} p. 738

Fig: 1.

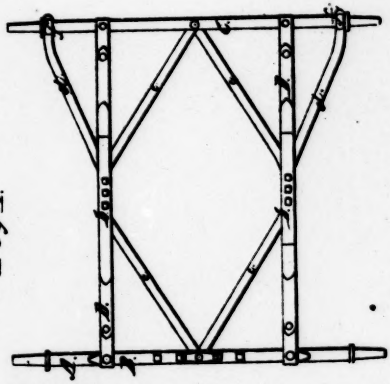


Fig: 2.

Witnesses
Samuel A. Piper,
George H. Andrews.

Inventor,
Anson K. Stone,
by his attorney
R. H. Adams.

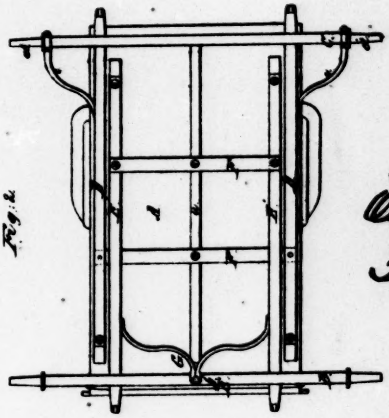
Sheet 2 - 2 Sheets

A. K. Stone,

Carriage Spring

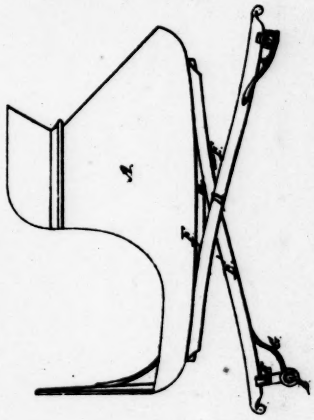
No. 63,668. Patented Apr. 9, 1867.

Fig. 2.



No. 234.
Olin et al.
v.
Timken
} p. 739

Fig. 1.



Witnesses:
Samuel S. Piper,
George W. Andrews.

Inventor,
Anson K. Stone,
by his attorney
R. H. Kelsey

cause it to lend its resisting power to that of the other main spring.

1. I claim the combination, as well as the arrangement, of the two main springs D D and the four elastic braces or brace-springs *c c c c* with the two axles and the sweep-bar, as specified.

2. I also claim the combination, as well as the arrangement, of the elastic braces *d d* with the four elastic braces *c c c c*, the two main springs D D, the two axles, and the sweep-bar, the whole being substantially as hereinbefore explained.

ANSON K. STONE.

Witnesses:
C. M. START.
C. H. FOOT.

740 UNITED STATES PATENT OFFICE.

ANSON K. STONE, of Oronoco, Minnesota.

Improvement in Wheel-carriages.

Specification forming part of Letters Patent No. 63669, dated April 9, 1867.

To all persons to whom these presents shall come:

Be it known that I, Anson K. Stone, of Oronoco, in the county of Olmstead and State of Minnesota, have invented a new and useful improvement in wheel-carriages; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

(Here follows diagram marked p. 741.)

Figure 1 denotes a side elevation, and Fig. 2 an under-side view, of a carriage-body with my invention applied to it, such invention or improvement having reference to the application of the axles to the body of the carriage by means of springs.

In such drawings, A, denotes the body of a common pleasure-wagon; B, the front axle, and C the rear axle, thereof. The rear axle, C, I connect with the body A by means of two wooden springs, D D, extending from the axle at right angles. These springs are bolted to the axle near one end of each of them. At or near their other ends the springs are bolted to the carriage-body. The sweep-bar E of the front axle is also connected to the body A by two other springs, E′ E′, the connection of such springs with the said bar and body being like that of the first two springs with the rear axle and the body. The two springs D D cross the two springs E′ E′, and are arranged in other respects with regard to them in manner as represented in the drawings. Furthermore, each pair of springs is connected to one of two auxiliary springs, F F, which, at their middles, are fastened to the carriage-body, or to a bar or brace, *a*, extending along and projecting from the bottom of such body. Each spring F, at its ends, is fastened to two of the main springs, and is arranged with respect to them in manner as shown in Fig. 2.

The king-bolt *b* of the front axle goes through the said axle, the sweep-bar, and a brace, G, extending from the said bolt in two directions, and being fastened to the two main springs D D.

The rear axle is further supported by screws *c c*, which go from it near its journals *d d* to and are fastened to the two springs E′ E′, the same being as exhibited in Figs. 1 and 2.

The auxiliary springs not only answer their purpose as springs to aid in supporting the axles, but serve as braces for the main springs, which are arranged and applied to the axles and the carriage-body in manner as specified, not only answer the purpose of

A. K. STONE.

Carriage-Spring.

No. 63,669. Patented Apr 9. 1867.

No. 234. Olin et al. v. Timken. } p. 741

Fig. 1.

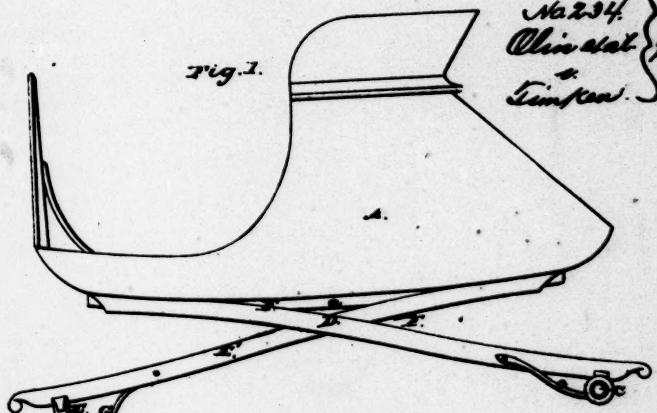
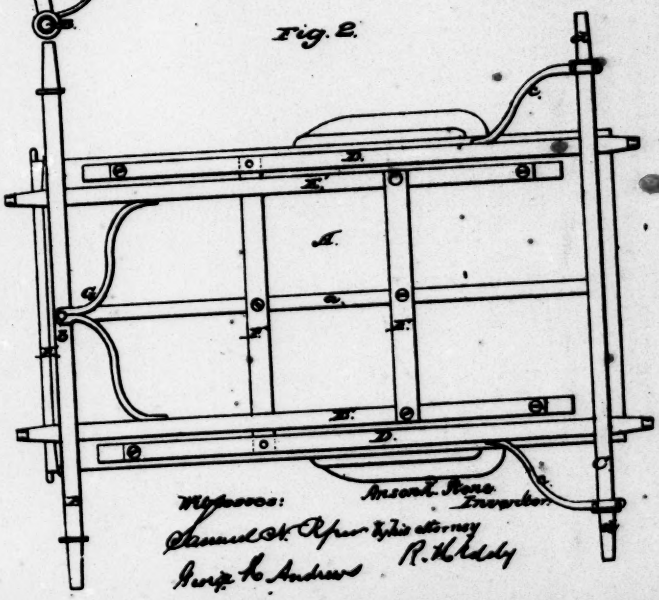


Fig. 2.



Witnesses:
Samuel N. Roper
George H. Andrews

Ansonk Stone
Inventor
by his attorney
R. H. Eddy

springs, but as a perch, thus rendering unnecessary a perch as usually applied to the rear axle and sweep-bar of a carriage.

1. I claim the above-described arrangement of the four main springs D D E′ E′ with each other, the carriage-body, the rear axle, and the sweep-bar of the front axle.

2. I also claim the combination, as well as the arrangement, of the auxiliary or transverse brace-springs F F with the main springs D D and E′ E′, arranged and applied to the carriage-body, the rear axle, and the sweep-bar of the front axle substantially as specified.

ANSON K. STONE.

Witnesses:

C. M. START.
C. H. FOOT.

742 UNITED STATES PATENT OFFICE.

GEORGE W. KENAN, of Upper Sandusky, Ohio.

Letters Patent No. 107,386, dated September 13, 1870.

Improvement in Buggy-springs.

The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, George W. Kenan, of Upper Sandusky, in the county of Wyandot and State of Ohio, have invented a new and useful buggy-spring; and I do hereby declare that the following is a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing, in which—

(Here follows diagram marked p. 743.)

Figure 1 is a side view of my improvement, as applied to a buggy or light wagon.

Figure 2 is a top view of the springs, with the body removed.

Figure 3 is a view of the under side of the fifth-wheel.

The nature of my invention consists in the use of blocks of India rubber, for strengthening the springs at the points where they cross each other; and, also, in the peculiar arrangement and attachment of the fifth-wheel to the front axle.

My improvement is capable of being applied to different kinds of vehicles, but it is peculiarly adapted to buggies and light wagons.

The springs consist of bars A A and B B of elastic wood or metal. Their upper ends are flattened on the upper side, and their lower ends are flattened on the lower side.

The upper ends of the bars A A are bolted to the bottom of the wagon-body at the rear end, and their lower ends are bolted to the upper section C of the fifth-wheel.

The upper ends of the bars B B are bolted to the bottom of the wagon-body at the front end, and their lower ends are bolted to the rear axle E.

At the points where the springs A B cross each other, they pass through solid India-rubber balls or blocks K, which are formed with holes large enough for them to pass through, and fit closely.

These blocks serve to strengthen the springs, and add to the steadiness of the motion, and they prevent much of the sudden jolting and jarring of the vehicle in passing over rough ground. They also assist in preserving the level position of the body of the vehicle, should the weight be unequally distributed.

The lower section D of the fifth-wheel has formed on its under

G. W. KENAN.

Carriage Spring.

No. 107,386. Patented Sept. 13, 1870.

Fig 1.

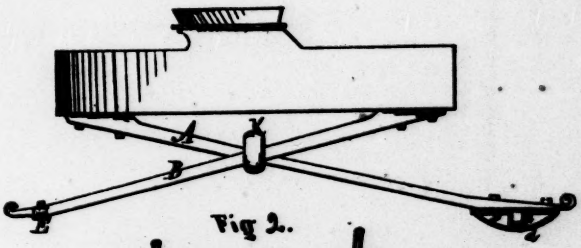


Fig 2.

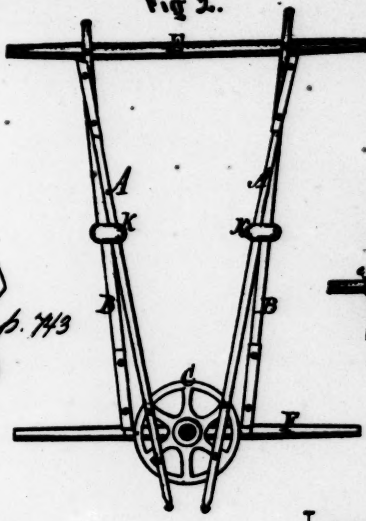


Fig 3.

No. 234
Olin et al.
v.
Tuckers
p. 743

Witnesses.

Parker H. Sweet Jr.
E. R. Brown

Inventor.

George W. Kenan,
by T. C. Fheake
Attorney.

side two staples or loops, C, diametrically opposite each other, corresponding in size with the thickest portion of the front axle.

It is also formed with a bar, *d*, extending diametrically across it, at right angles with the loops C.

The front axle F passes through the loops C, and between the section D and bar *d*, and is secured by the king-bolt, without the use of any other bolts.

What I claim as new, and desire to secure by letters patent, is—

1. The rubber balls or blocks K, in combination with the springs A B, substantially as shown and described.

2. The lower section D of the fifth-wheel, formed with the loops C and bar *d*, substantially as shown and described.

GEORGE W. KENAN.

Witnesses:

A. KAIL.

JACOB TRIBOLET.

745 UNITED STATES PATENT OFFICE.

THOMAS H. WOOD, of New York, N. Y., assignor to J. B. Brewster & Co., of same place.

Improvement in Carriage-springs.

Specification forming part of Letters Patent No. 139,348, dated May 27, 1873; application filed January 6, 1873.

To all whom it may concern:

Be it known that I, Thomas H. Wood, in the city, county, and State of New York, have invented a new and useful improvement in light carriages, of which the following is a specification:

(Here follows diagram marked p. 744.)

Figure 1 is the side elevation of a vehicle with the near wheels removed. Fig. 2 is a plan view of my supporting-frame with the box or buggy-body resting thereon.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved arrangement of transverse springs on light wagons, and has for its object to combine, in a wagon supported on single transverse springs and side bars, the advantage of elasticity, double elliptic transverse springs, and of the deep setting of the body obtained at present by using the single springs. Light carriages supported on double elliptic springs raise the bodies too high for convenience, and are moreover more expensive than those having single springs. On the other side such carriages as are at present supported on single transverse springs, whose ends connect with side bars rigidly secured to the wagon-bodies, are not sufficiently elastic and yielding to suit the rapid motion to which they are frequently subjected. The invention consists in the improvement of light vehicles, as hereinafter described and pointed out in the claim.

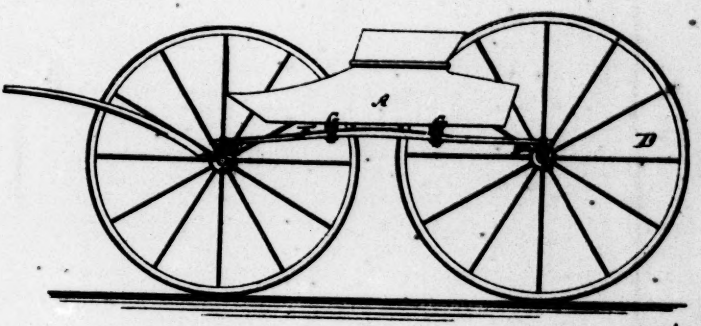
In the accompanying drawing, the letter A represents the body of a light carriage of suitable style. B and C are the axles of the carriage, and D D the wheels. Upon the axles are fastened the middle portions of transverse springs E E, whose ends are secured to side bars F F. These side bars are made of hickory wood or other material, and aid, with whatever elasticity they may possess, in making the support of the body A yielding. To the under side of the carriage-body A are secured transverse springs G G, whose ends connect, by suitable couplings, with the side bars F F, as is clearly shown in the drawing. The springs G G and E E can be made of metal or wood or other material, and are semi-elliptic or flat springs in contradistinction to the full elliptic spring heretofore used as direct supports for carriage-bodies on their axles.

T. H. WOOD.

Carriage Springs.

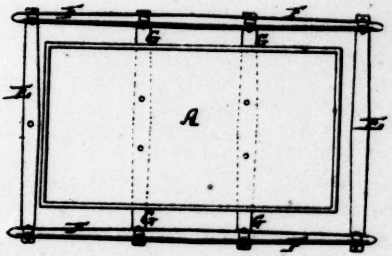
No. 139,348. Patented May 27, 1873.

Fig. 1.



No. 234.
Olin et al.
v.
Trinken.
p. 944

Fig. 2.



Witnesses:

Chas. Nida
Sedgwick

Inventor:

T. H. Wood

per Munn & Co.

Attorneys.

Having thus described my invention, I claim as new and desire to secure by letters patent—

A frame, consisting of the longitudinal side bars F F, downwardly-bowed end springs E E, and upwardly-bowed middle springs G G, constructed, arranged, and applied as and for the purpose described.

THOS. H. WOOD.

Witnesses:

C. SEDGWICK.
T. B. MOSHER.

746 UNITED STATES PATENT OFFICE.

THOMAS H. WOOD, of New York, N. Y., assignor to J. B. Brewster & Co., of same place.

Improvement in Carriage-springs.

Specification forming part of Letters Patent No. 139,348, dated May 27, 1873; reissue No. 6018, dated August 18, 1874; application filed July 29, 1874.

To all whom it may concern:

Be it known that I, Thomas H. Wood, of New York, in the county and State of New York, have invented a new and useful improvement in carriage-springs, of which the following is a specification.

(Here follows diagram marked p. 747.)

Figure 1 is a side elevation of a vehicle having my improved spring. Fig. 2 is a plan view of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention has for its object to improve the manner of connecting the bodies of light carriages with the side bars, whereby they are supported; and it consists in interposing a pair of semi-elliptic springs between said side bars and the wagon-body.

In the accompanying drawing, the letter A represents the body of a light carriage of suitable style. B and C are the axles of the carriage, and D D the wheels. The axles are connected, by springs E E or otherwise, with the side bars F F. These side bars are made of hickory wood or other material. To the under side of the carriage-body A are secured transverse springs G G, whose ends connect, by suitable couplings, with the side bars F F, as is clearly shown in the drawing. These springs G G can be made of metal or other material, and are semi-elliptic or flat-springs, in contradistinction to the full elliptic springs heretofore used, as direct supports for carriage-bodies on their axles.

I claim as my invention—

The semi-elliptic springs G G, interposed between the side bars F F and the wagon-body, all combined substantially as specified.

THOS. H. WOOD.

Witnesses:

A. v. BRIESEN.

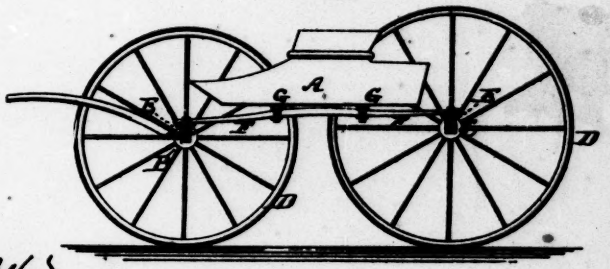
E. C. WEBB.

T. H. WOOD.

Carriage-Springs.

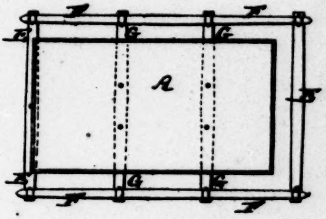
No. 6,018. Reissued Aug. 18, 1874.

Fig: 1



No. 234.
Olw et al.
v.
Timken
p. 747

Fig: 2.



Witnesses:

A. Moraga
E. C. Wright

Inventor:

Thos. H. Wood
by his attorney
A. V. Briesen

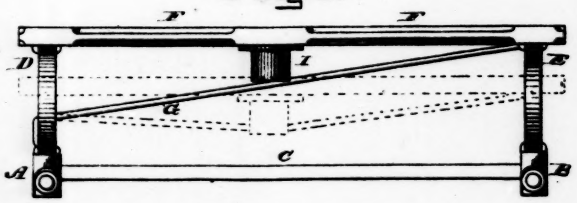
2 Sheets—Sheet 1.

M. NEWTON.

Vehicle-Spring Braces.

No. 196,536 Patented Oct. 30, 1877.

Fig. 1.



No. 234.
Olin et al.
Timpen
p 750.

Fig. 2.

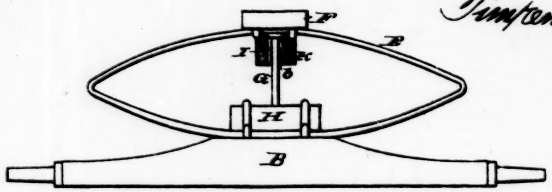
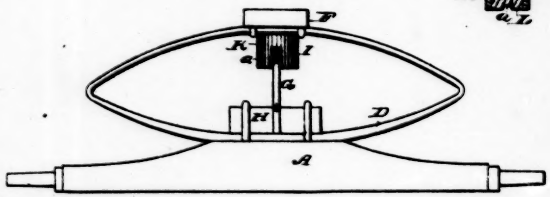


Fig. 4.

Fig. 3.



WITNESSES:

Jas. F. DuHamel

H. B. Brown

INVENTOR:

Madison Newton.

PER

H. S. Abbot.

ATTORNEY.

748 UNITED STATES PATENT OFFICE.

MADISON NEWTON, of Kentland, Indiana.

Improvement in Vehicle Spring-braces.

Specification forming part of Letters Patent No. 196,536, dated October 30 1877; application filed August 24, 1877.

To all whom it may concern:

Be it known that I, Madison Newton, of Kentland, in the county of Newton and State of Indiana, have invented certain new and useful improvements in spring-braces for vehicle; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to certain improvements in springs for vehicle; and the invention consists in a spring-bearing arranged to neutralize the slack of a flexible stay when the springs are contracted; also, in the construction and arrangement of parts, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make, construct, and use the same, I will now proceed to describe its construction and arrangement, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

(Here follow diagrams marked pp. 749 & 750.)

Figure 1 is a side elevation, showing in dotted lines the position of the device when the springs are loaded. Fig. 2 is a front elevation. Fig. 3 is a back elevation, showing the spring-bolster. Fig. 4 is a central vertical section through the bearing. Figs. 5 and 6 show my device when used with two rods instead of one.

A and B represent axles of any construction; C, an ordinary reach. D and E are ordinary elliptical springs secured to the axles in any suitable manner, and upon which the vehicle-body F rests.

To the bottom of the vehicle-body or the top of the spring, at the forward end, is secured one end of a flexible stay, G, which extends back to a bolster, H, of the spring D. This stay may extend from the forward end of the body back to the axle A, or other suitable place near the bottom of the spring D, and secured in any suitable manner; or one end may be secured to the top of the forward spring E, and extend back to the lower part of spring D, and this end be fastened in any desired way.

To the bottom of the vehicle, in any suitable place, preferably over the center of the stay, is attached a bearing, I, composed of a sleeve or housing, K, slotted at *a* and *b*, and containing a rubber spring, L.

Instead of a spring made of rubber, any other suitably elastic substance or spring may be used. The springs are always held

in a vertical position, and when loaded they are prevented from leaning forward by the flexible stay and bearing.

Having thus fully described my invention, what I claim as new, and desire to secure by letters patent, is—

1. In a vehicle, a spring-bearing, substantially as shown and described, arranged and operating to neutralize the slack of a stay, as shown.

2. The flexible stay, in combination with the spring-bearing, spring, and bolster, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MADISON NEWTON.

Witnesses:
JOHN ADE.
JOHN M. ARNOUT.

H. A. HIGHT, Sr.

VEHICLE-SPRING.

No. 169,808. Patented Nov. 9, 1875.

Fig. 1.

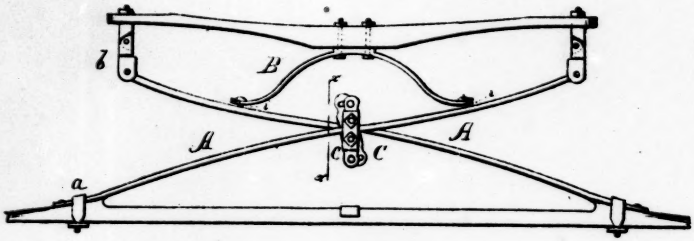


Fig. 2.

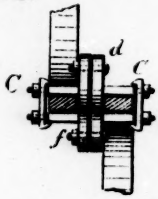


Fig. 5.

Fig. 3.

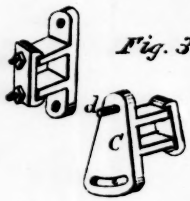
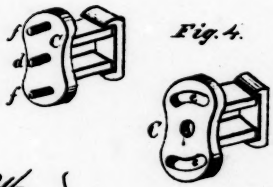


Fig. 4.



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Olin et al.
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Timken
p. 751

WITNESSES
P C Dieterich
H C Scott

INVENTOR
H. A. Hight Sr.
per T. H. Alexander
ATTORNEY

752 UNITED STATES PATENT OFFICE.

HENRY A. HIGHT, SR., of Fort Wayne, Indiana.

Improvement in Vehicle-springs.

Specification forming part of Letters Patent No. 169,808, dated November 9, 1875; application filed July 2, 1875.

To all whom it may concern:

Be it known that I, H. A. Hight, Sr., of Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful improvements in carriage-springs; and I do hereby declare that the following is a full, clear and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in certain improvements upon letters patent No. 151,876, granted to me, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

(Here follows diagram marked p. 751.)

Figure 1 is a front elevation of my improved carriage-spring; and Figs. 2, 3, 4, and 5 are detached views of parts thereof.

A A represent two equalizing spring bars or plates or series of plates which cross each other in the center, or at any other given point desired, so as to suit the width of the carriage-body. Their lower ends are secured to the axle or spring-bar of vehicle by means of clips *a*, and their upper ends by means of jointed connections *b* with the carriage-body. A half-elliptic spring, B, is also secured to the carriage-body, and has its ends resting on the equalizing bars or plates A A. These bars or plates A A are joined together at the point or place of crossing by a double box or clip coupling, C C. One of these parts is securely fastened to its equalizing-bar, while the other bar passes loosely through the other part of the coupling, and the two parts of the coupling are united in the following manner: The adjoining plates of the coupling are pivoted together at their upper ends by a bolt, *d*, and at their lower ends a bolt, *f*, from one passes through a curved slot, *e*, in the other; or they may be pivoted in the center, and at each end have a bolt from one plate pass through a slot in the other plate. In either case the spring-bars A A are allowed to work easily, while they are, at the same time, coupled together in such a manner as not to get out of their proper positions. In each end of the half-elliptic spring B is a nib

or shank, *i*, which enters a slot in the bars or plates A, allowing free motion of the parts, while it prevents them from coming apart.

Having thus fully described my invention, what I claim as new, and desire to secure by letters patent, is—

The combination, with the equalizing spring bars or plates A A, of the double coupling C C, arranged as described, and the two parts pivoted together, as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY A. HIGHT, SR.

Witnesses:

G. I. Z. RAYHOUSER.

A. H. BITTINGER.

D. F. COOPER.
Vehicle-Spring.

No. 200,435. Patented Feb. 19, 1878.

No. 234.
Oliver et al. } p. 753
v
Timken }

Fig: 1.

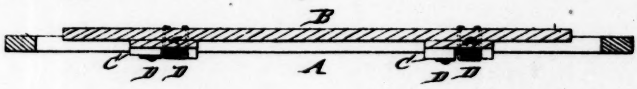

Fig: 2.

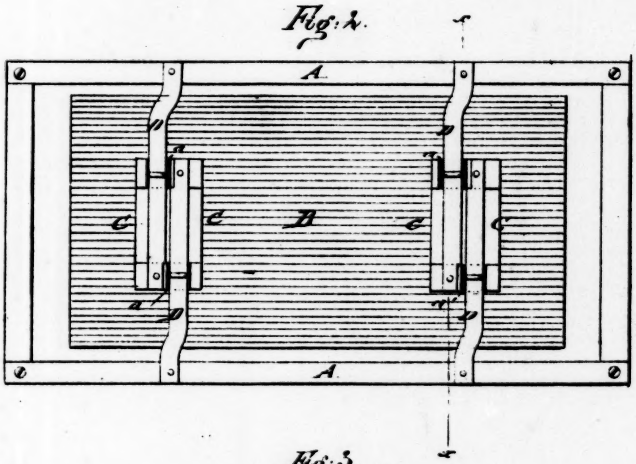

Fig: 3.

WITNESSES:
Chas. Nida.
C. Sedgwick

INVENTOR:
D. F. Cooper
BY Munn & Co
ATTORNEYS.

754 UNITED STATES PATENT OFFICE.

DRURY F. COOPER, of New York, N. Y.

Improvement in Vehicle-springs.

Specification forming part of Letters Patent No. 200,435, dated February 19, 1878; application filed January 15, 1878.

To all whom it may concern:

Be it known that I, Drury F. Cooper, of New York city, in the county and State of New York, have invented a new and improved side-bar wagon, of which the following is a specification:

(Here follows diagram marked p. 753.)

In the accompanying drawings, figure 1 represents a vertical longitudinal section; Fig. 2, a bottom view, and Fig. 3 a vertical transverse section on line *x x*, Fig. 2, of my improved side-bar wagon.

Similar letters of reference indicate corresponding parts.

This invention relates to a novel construction of side-bar wagon, by which the same is supported in steady and superior manner on the springs, without any lateral rocking motion; and the invention consists of two parallel rubber-cushioned springs, that extend from the side bars to blocks at the under side of the body, to which each spring is fastened at two points, being cushioned at the intermediate points.

Referring to the drawing, A represents the side bars, and B the body of my improved side-bar wagon. The body B is provided at the under side with blocks C, having raised ends, to which the lateral sustaining springs D are applied. The body B is supported on two separate springs at the front and hind end, that are secured, in the usual manner, by clips to the side bars, and extended parallel to each other across the blocks C. The ends of the springs between the side bars and body are slightly curved in S or other shape, the front spring being curved backward, the adjoining spring forward, so that the points of attachment to the side bars may be aligned, or nearly so. Each spring D is attached, by staples or otherwise, at two points, to its block C, the intermediate point of attachment being cushioned by an interposed rubber block, *a*, or by other elastic means set into a recess of the block, while the outer end is secured to the raised opposite end of the block. The weight of the wagon-body is first thrown on the outer ends of the springs, which are depressed, then on the cushions *a*, and, finally, on the parallel sections of the springs, which are strained, so as to assist in the support of the body.

The fourfold support of the wagon-body by cushioned springs having points of attachment at both sides of its longitudinal axis secures a reliable and steady, yet yielding, motion of the body with-

out any rocking, and furnishes a wagon-body that rides with great ease and comfort on its springs.

Having thus described my invention, what I claim as new, and desire to secure by letters patent, is—

The cross-springs D, fastened at the outer end to the frame A, at the inner end to the body, and having an intermediate elastic connection with the body, as and for the purpose specified.

DRURY F. COOPER.

Witnesses:

PAUL GOEPEL.
C. SEDGWICK.

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H. A. HIGHT. Sr.
Vehicle Springs.

No. 234.
Oliver et al.
v.
Truman
H. 755

No. 151,876.

Patented June 9, 1874.

Fig. 1.

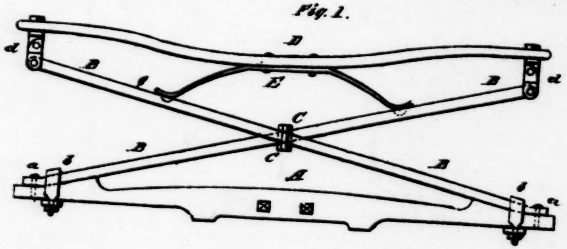


Fig. 2.

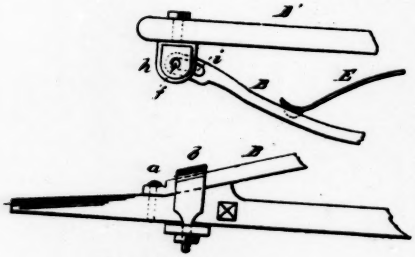


Fig. 3.

Fig. 4.

Fig. 6.

Fig. 5.

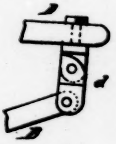
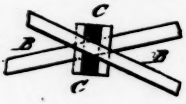


Fig. 7.



WITNESSES.
H. C. Whitehead
Fred. Kiesche

INVENTOR
Henry A. Hight Sr.
per H. C. Alexander
ATTORNEY.

756 UNITED STATES PATENT OFFICE.

HENRY A. HIGHT, SR., of Fort Wayne, Indiana.

Improvement in Vehicle-springs.

Specification forming part of Letters Patent No. 151,876, dated June 9, 1874; application filed April 15, 1874.

To all whom it may concern:

Be it known that I, H. A. Hight, Sr., of Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful improvements in carriage-springs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of an equalizing carriage-spring, formed or composed of equalizing spring-bars or plates, or series of plates, and coupling, as will be hereinafter more fully set forth.

(Here follows diagram marked p. 755.)

In the accompanying drawing, figure 1 is an end view of front bolster; Fig. 2, portion of end view of rear axle; Fig. 3, side view of upper part of same; Figs. 4 and 5, enlarged end and side view of shackle *d*; Figs. 6 and 7, enlarged views of coupling C.

A represents the front bolster of a vehicle, on the top of which, near each end, is secured a spring-bar, B, by means of a bolt, *a*, and clip *b*, or any other suitable means. The spring-bars B cross each other in the center, and are connected by a coupling, C, which consists simply of a double loop, one being firmly secured to one of the spring-bars, and the other bar passing through the other loop. The upper end of each spring-bar is connected with the front spring-block D of the vehicle by means of a double-jointed shackle, *d*, or male and female coupling, to accommodate the expansion of the equalizing spring-bars. To the under side of the block or bar D is secured a half-elliptic spring, E, formed of one or more steel plates, the ends of which bear against the upper sides of the upper portions of the spring-bars B, as shown. To the rear axle are secured similar spring-bars, coupled together in the same manner, and also to the back axle-bed D′, which has a similar semi-elliptic spring. The coupling of the spring-bars with the back axle-bed D′ is formed by means of a box-clip, *h*, attached to the bed D′; and the upper end of the spring-bar has an oblong slot, *i*. A pin, *f*, passes through the clip *h* and the slot *i*, thus coupling them together, and allows for the expansion of the equalizing spring-bars.

This device may be applied to a carriage or vehicle of any de-

scription; and, also, to any other work, or for any other purpose, where an easy and gentle elastic motion is desired.

Having thus fully described my invention, what I claim as new, and desire to secure by letters patent, is—

1. The combination, with the axle or bolster, of the spring-bars B B, coupling C, and double-jointed shackles *d d*, substantially as and for the purposes set forth.

2. The box-clips *h*, in combination with the slotted spring-bars B and pins *f*, as and for the purposes set forth.

3. The semi-elliptic spring E, in combination with the spring-bars B, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY A. HIGHT, SR.

Witnesses:

OBADIAH J. KOVER.

JOHN O. ROBBINS.

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W. H. STICKLE.
Vehicle-Spring.

No. 213,466

Patented Mar. 18, 1879.

Fig. 1

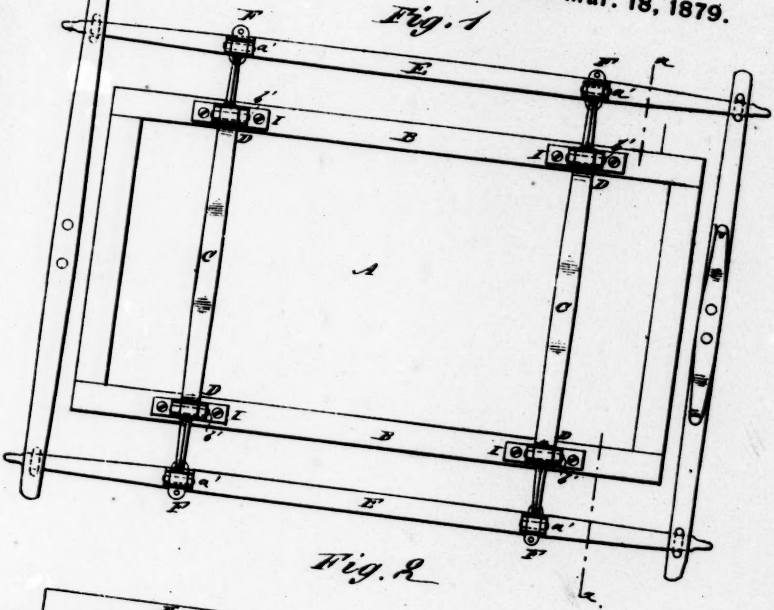


Fig. 2

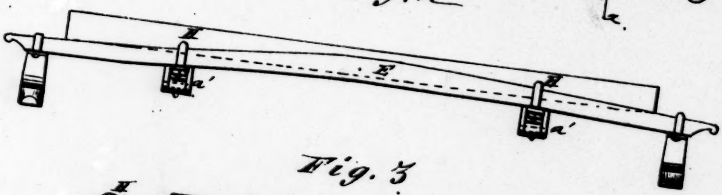
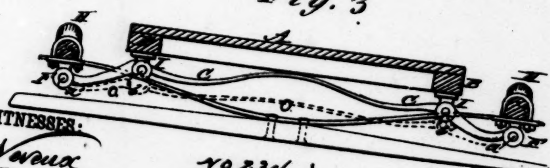


Fig. 3



WITNESSES:
C. Neveux
C. Sedgwick

No. 234.
Olin et al.
v.
Timken
p. 757

INVENTOR:
W. H. Stickle
BY Munn & Co.
ATTORNEYS.

758 UNITED STATES PATENT OFFICE.

WILLIAM H. STICKLE, of Terre Haute, Indiana.

Improvement in Vehicle-springs.

Specification forming part of Letters Patent No. 213,466, dated March 18, 1879; application filed December 21, 1878.

To all whom it may concern:

Be it known that I, William H. Stickle, of Terre Haute, in the county of Vigo and State of Indiana, have invented a new and useful improvement in carriage-springs, of which the following is a specification:

(Here follows diagram marked p. 757.)

Figure 1 is a plan view of the under side of the floor or bottom of the carriage with the springs in position. Fig. 2 is a side elevation. Fig. 3 is a sectional elevation through *x x*.

Similar letters of reference indicate corresponding parts.

A is the floor or bottom of the vehicle. B B are the sills. C C are the cross-springs or levers, upon which the body of the vehicle rests. These springs are each of one piece of metal throughout their length, and are flexible from D to D, whence they are prolonged into rigid goose-necks.

E E are the side bars, to which shackles F F F F are attached by clips H H, and through the lugs of the shackles are pins *a' a'*, which hold the ends of the springs C C.

Shackles I I I I, which are bolted to sills B B, receive the shanks of the goose-necks, and hold them in position with pins *b' b'*, upon which the springs pivot and oscillate.

The cross-springs or levers C C are of flexible tempered steel, arched at the center, as will be seen, receive their load at the shackles I I I I, and have their fulcrums in shackles F F F F.

It is plainly obvious that as the load presses down at I I, the springs will assume the form and position shown by the dotted lines O O, and that when the pressure is removed they will change position, oscillating on their pivots *a' a'* and *b' b'*, and keeping up a reciprocating motion as they are pressed and relieved alternately at the points I I.

This invention overcomes all the swaying side motion, the jostling and bumping, and the ducking down of the ends of the body of the vehicle, which are so unpleasant to the occupants of vehicles ordinarily. It is of simple and durable construction, and can be advantageously applied to various styles of vehicles.

Having thus described my invention, I claim as new and desire to secure by letters patent—

1. The combination of the flexible levers or springs C C, with rigid goose-necks, with the shackles I I I I at four points on the

bottom of the vehicle-body, substantially as herein shown and described.

2. The combination of the flexible levers or springs C C, with rigid goose-necks, with the shackles I I I I and the shackles F F F F, connected with the side bars, arranged and operating substantially as and for the purpose described.

WILLIAM HENRY STICKLE.

Witnesses:

JOHN WHITAKER.
JOHN E. TOBIN.

W. F. BAIRD.

VEHICLE-SEAT SPRING.

No. 171,757. Patented Jan. 4, 1876.

Fig 1

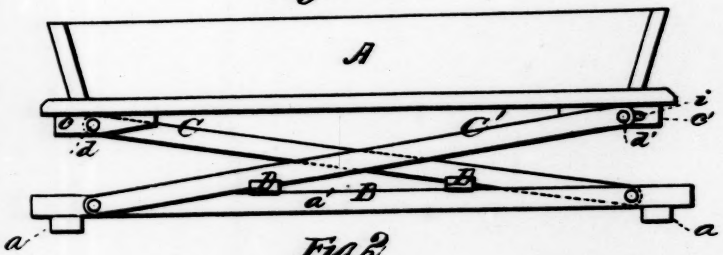


Fig 2

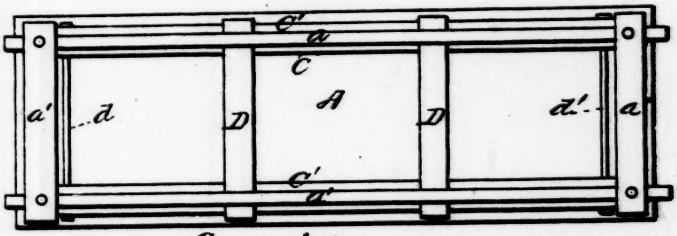


Fig 3

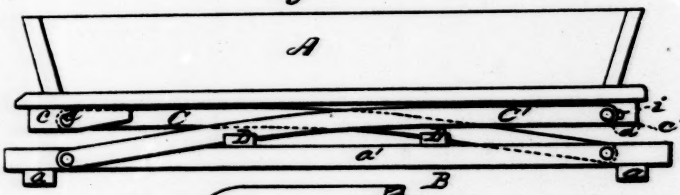
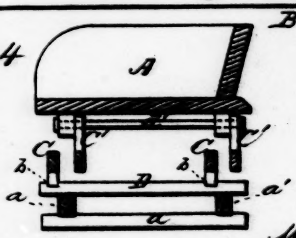


Fig 4



No. 234.
Oliver et al.
v
Tunkers.
} p. 759

WITNESSES
E. H. Bates
Eugene W. Johnson

INVENTOR
William F. Baird
Chipman Hosmer & Co.
ATTORNEYS

760 UNITED STATES PATENT OFFICE.

WILLIAM F. BAIRD, of Burlington, Iowa.

Improvement in Vehicle-seat Springs.

Specification forming part of Letters Patent No. 171,757, dated January 4, 1876; application filed December 11, 1875.

To all whom it may concern:

Be it known that I, Wm. F. Baird, of Burlington, in the county of Des Moines and State of Iowa, have invented a new and valuable improvement in wagon-seats; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

(Here follows diagram marked p. 759.)

Figure 1 of the drawing is a representation of a front view of my wagon-seat, and Fig. 2 is a plan view of the same. Fig. 3 is a front elevation thereof, and Fig. 4 is a transverse vertical sectional view.

This invention has relation to improvements in springs for wagon-seats; and it consists in the arrangement and novel construction of crossed lever-springs, pivoted to a rectangular frame, adapted to rest upon the edges of a wagon-body at one end, and at the other to the seat, whereby a very effective spring action is imparted to the seat when the said springs are allowed to enter gains or notches in cross-pieces secured to the foundation-frame, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates an ordinary wooden seat, in connection with which I propose to illustrate my invention. B represents a rectangular wooden frame, of sufficient length to reach across the wagon-body, the end bars *a* of which are bolted to the side rails *a'* upon their under sides, so as to form at each end of the said frame a stop which, engaging with the sides of the wagon-body, will hold the said frame against endwise displacement. C C' represent crossed rectangular wooden lever-springs, of suitable dimensions, which are pivoted at their lower ends to the side bars *a'* of frame B. These springs, as shown in Fig. 1, cross each other at or near the center of their lengths, and are fulcrumed in spring-braces D, bolted across the side rails *a'* of the foundation-frame A, gains or notches *b* being cut in the said braces for their reception, and for the purpose of holding them against lateral displacement. The upper ends of lever-springs C are pivoted to blocks *c*, bolted to the under side of the seat at one end by means of a metallic rod, *d*, passing through registering perforations in said levers and blocks, which rod is held to its place by means of nuts applied upon its projecting ends. The upper ends of levers C' are also se-

cured to blocks c' by means of a metallic rod, d', which passes through slots i, formed in the said blocks, and perforations made in the ends of the said levers, nuts being, as before, applied upon the projecting ends of the said rod, for the purpose of holding it against displacement.

By this means spring-levers C′ are allowed a certain play in their attaching-blocks c', the effect of which is to allow them and the levers C to flex freely when the seat is in use, and, by relieving rods d d' of the initial strain, to obtain the full spring of the said levers. I thus produce a spring action equal in quality to the most costly steel springs commonly used, which in its incipiency is very gradual and easy, and at its final downward flexure equal to bearing up against any pressure to which in the nature of things the said spring-seat will be subjected.

The advantages of using the foundation-frame B are, first, that whatever be the nature of the load—as lumber, cases of goods, sacks of grain, and the like—the seat may be raised upon the top of the load; and, secondly, that there will be no danger of tearing the sacks or bales of goods, the broad, smooth frame B being an effectual guard and protection against such mishaps, for the reason that all the spring mechanism is above the bearing-surface of the said frame.

Attaching-blocks c c' are capable of being detached from the seat, and the spring-levers are removably secured to the frame and to the said blocks; hence when, from long use, the said levers become permanently bent, they may be reversed, and the spring action fully restored.

What I claim as new, and desire to secure by letters patent, is—

1. In a wagon-seat spring, the combination, with a seat, A, having perforated blocks c and slotted blocks c', of the crossed spring-levers C C′, secured by rods d d' to the said blocks, and pivoted to the foundation-frame A, substantially as specified.

760½ 2. In combination with a seat, A, and the crossed lever-springs C C′, the frame B, having braces D, with notches b, substantially as specified, and for the purpose set forth.

3. The slotted blocks c', in combination with spring-levers C and an attaching-rod, d, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM F. BAIRD.

Witnesses:

T. G. CATLETT.

W. E. PILLING.

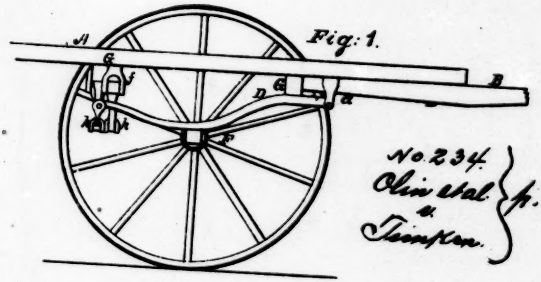
W. F. VERNIER.

Carriage Spring.

No. 84,446.

Patented Nov. 24, 1868.

Fig: 1.



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Olin et al.
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Tienken.
p. 761.

Fig: 2.

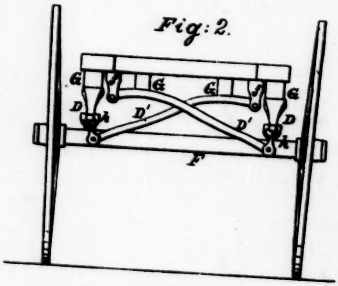
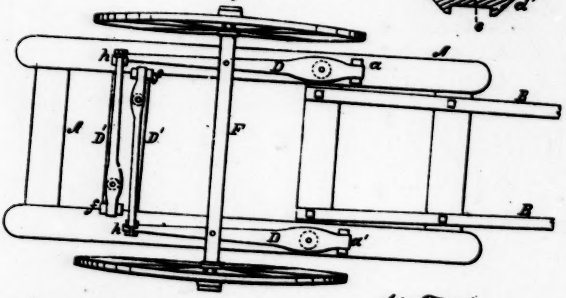


Fig: 4.

Fig: 3.



Witnesses { Wm. A. Steel
John Parker

W. F. Vernier
by his attys
Henry Howson

762 UNITED STATES PATENT OFFICE.

WILLIAM F. VERNIER, of Philadelphia, Pennsylvania.

Letters Patent No. 84446, dated November 24, 1868.

Improvement in Carriage-springs.

The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, William F. Vernier, of Philadelphia, Pennsylvania, have invented certain improvements in spring-carriages; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists, first, of a certain arrangement of levers, by which the body of a carriage is connected to the axle, and, secondly, of gum-elastic springs, constructed as fully described hereafter, which intervene between each of the said levers and the body of the carriage, and upon which the latter rests.

In order to enable others skilled in the art of carriage-building to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

(Here follows diagram marked p. 761.)

Figure 1 is a side view of a carriage, with one of the wheels removed, to more clearly show my improvements.

Figure 2, a rear view of the same.

Figure 3, an inverted plan view, and

Figure 4, an enlarged sectional view of one of the springs.

Similar letters refer to similar parts throughout the several views.

A is a frame, which forms a part of the body of a carriage, and

B B are the shafts secured to the same.

On the under side, and near to the front end of this frame, are two hangers *a* and *a'*, to which are hung the levers D D, and the axle F of the carriage is secured to the under side of these levers, as plainly shown in the drawing.

Between each of the levers and the frame of the carriage intervenes a spring, G, which, as shown in Fig. 4, consists of a perforated gum-elastic cylinder, *c*, held between two recessed disks, *d* and *d'*, one of which is secured to the frame and the other to the lever, the gum spring being held in its place, as the disks are moved toward or from each other, by central pins, *e*, of the disks which enter the hole in the spring.

To hangers, *f f*, at opposite sides of the rear end of the frame, are hung cross-levers D' D', each of which is connected, by a link, *h*, to the rear end of one of the levers D, and a spring, G, similar to that

above described, intervenes between each of these cross-levers and the frame of the carriage.

The whole weight of the body of the carriage is thus borne by the gum-elastic springs, and transmitted from them to the axle F, through the medium of the levers.

The action upon the springs being in every case a direct downward pressure, they work more perfectly and are less liable to get out of order than if submitted to strains from any other point.

Another advantage of my invention, arising from the peculiar combination and arrangement of levers, is the fact that a weight placed upon one corner or other extreme point of the frame, will not unduly depress the latter at that point, but will press almost as evenly upon the springs as if it were equally distributed among them.

A third advantage gained by thus connecting the springs and levers together is the regular undulating motion given to the body of the carriage in passing over rough roads, instead of the swaying motion that would result if disconnected levers were employed.

Although I have shown my invention as applied to a carriage with two wheels only, it will be readily understood, by those skilled the art of carriage-building, that my improvements may be applied to four-wheeled carriages with the same advantages as those described above.

I claim as my invention, and desire to secure by letters patent—

1. In combination with the axle and frame of a carriage, the lever D, having its fulcrum at *a*, and the gum-elastic spring G.

2. In combination with the above, the cross-levers D′, with their gum-elastic springs, arranged substantially as and for the purpose set forth.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WILLIAM F. VERNIER.

Witnesses:

JOHN WHITE.

HARRY SMITH.

(Model.)

H. TIMKEN.
Vehicle Spring.

No. 239,406. **Patented March 29, 1881.**

Fig. 1.

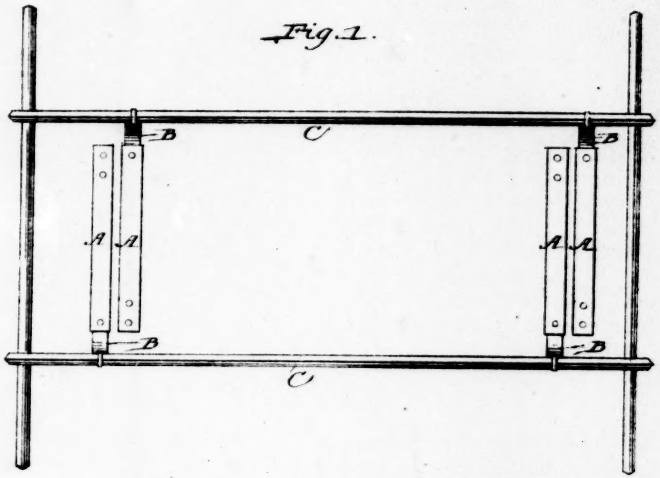
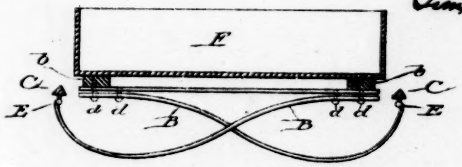


Fig. 2.

No. 234. Olin et al. v. Timken. } p. 763



Witnesses:
W. E. Matthews
C. H. Hunter.

Inventor:
Henry Timken
By Wm M Eccles
his attorney in fact

764 UNITED STATES PATENT OFFICE.

HENRY TIMKEN, of St. Louis, Missouri.

Vehicle-spring.

Specification forming part of Letters Patent No. 239,406, dated March 29, 1881. Application filed December 16, 1880. (Model.)

To all whom it may concern:

Be it known that I, Henry Timken, of the city of St. Louis, and State of Missouri, have invented a new and useful improvement in buggy-springs, of which the following is a full and exact description, reference being had to the annexed drawings and letters marked thereon.

The nature of my invention consists in providing quarter-elliptic buggy-springs, attached to the under side of the body near the sides, and crossing each other, and attached to the side bars at the opposite sides from which they are respectively attached to the body, with a flexible metal bearing-spring to give additional elasticity to the cross or quarter-elliptic springs; and it relates to that class of springs which are quarter-elliptic and turned up at the small ends, and which are fastened to the body at opposite sides from each other, and from which each is respectively fastened to the side bars.

(Here follows diagram marked p. 763.)

Figure 1 is a top view of the flexible metal bearing-spring, the quarter-elliptic springs, the side bars, and the gearing. Fig. 2 is an end view of the bearing-springs, the quarter-elliptic springs, and a transverse section of the body and side bars at the place where the springs are attached to them, respectively.

Letter A, in Fig. 1, is a flexible metal bearing-spring, attached at one end to the large end of the spring B, and both attached permanently to the under part of the body at one side, and the other end is attached permanently to the opposite side of the body underneath, and serves to receive the pressure of the spring B, yielding as it presses against it in proportion to its elasticity, thus giving more elasticity to the spring B than if it had a rigid and inflexible bearing-plate. The ends of this bearing-spring rest on the bearings or sills of the body, so that the bearing-spring between its ends may be free to move up and down. Of course there may be one of those bearing-springs for each quarter-elliptic spring, or there may be but one for each set of quarter-elliptic springs.

B B are quarter-elliptic springs turned up at the small ends, and with their large ends attached to the bearing spring or springs A A, at the under side and at one end, then running, with the bearing-springs A A, to the opposite sides of the body, crossing each other, and having their small ends attached by ordinary toggles to the side bars, C C.

C C are ordinary side bars of buggies, with their front ends resting on the bolster, and their rear ends resting on the hind axle.

Letter F, in Fig. 2, shows a sectional view of the body, and *b b* show the ends of the sills or bearings to which the ends of the bearing-springs A A are attached.

d d d d are screws or bolts to hold the bearing-springs A A and quarter-elliptic springs B B together, and by means of which they are fastened to the body F. Of course they may be fastened together and to the body in any other permanent manner.

E E are toggles connecting the small ends of the springs to the side bars.

The attachment of the springs B B to opposite sides of the under portion of the body and crossing each other, and being attached to the side bars, C C, at opposite sides from which they are respectively attached to the body, is old, and I lay no claim to it in this specification, neither do I lay any claim to the manner in which the springs are attached to the side bars; but

What I do claim as new, and for which I ask letters patent to be granted me, is—

The springs B B, attached to the under side of the body of a buggy at the opposite sides to each other, and crossing each other, and attached to the side bars, C C, at opposite sides from which they are respectively attached to the body, in combination with the metallic bearing-springs A A, substantially as above described, and for the purposes set forth.

HENRY TIMKEN.

Witnesses:
WM. M. ECCLES.
M. S. ECCLES.

(Here follow photographs marked pp. 765 to 768 incl.)

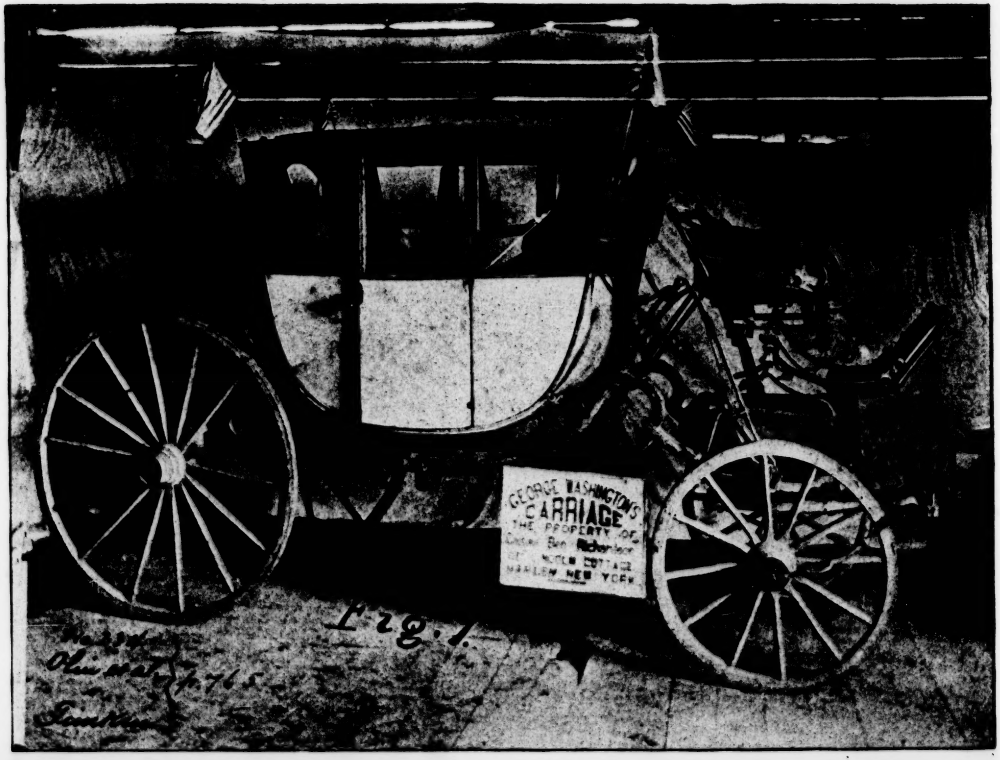

GEORGE WASHINGTON'S
CARRIAGE
THE PROPERTY OF
Richardson
WOLFE COTTAGE
HARLEM NEW YORK

Fig. 1.

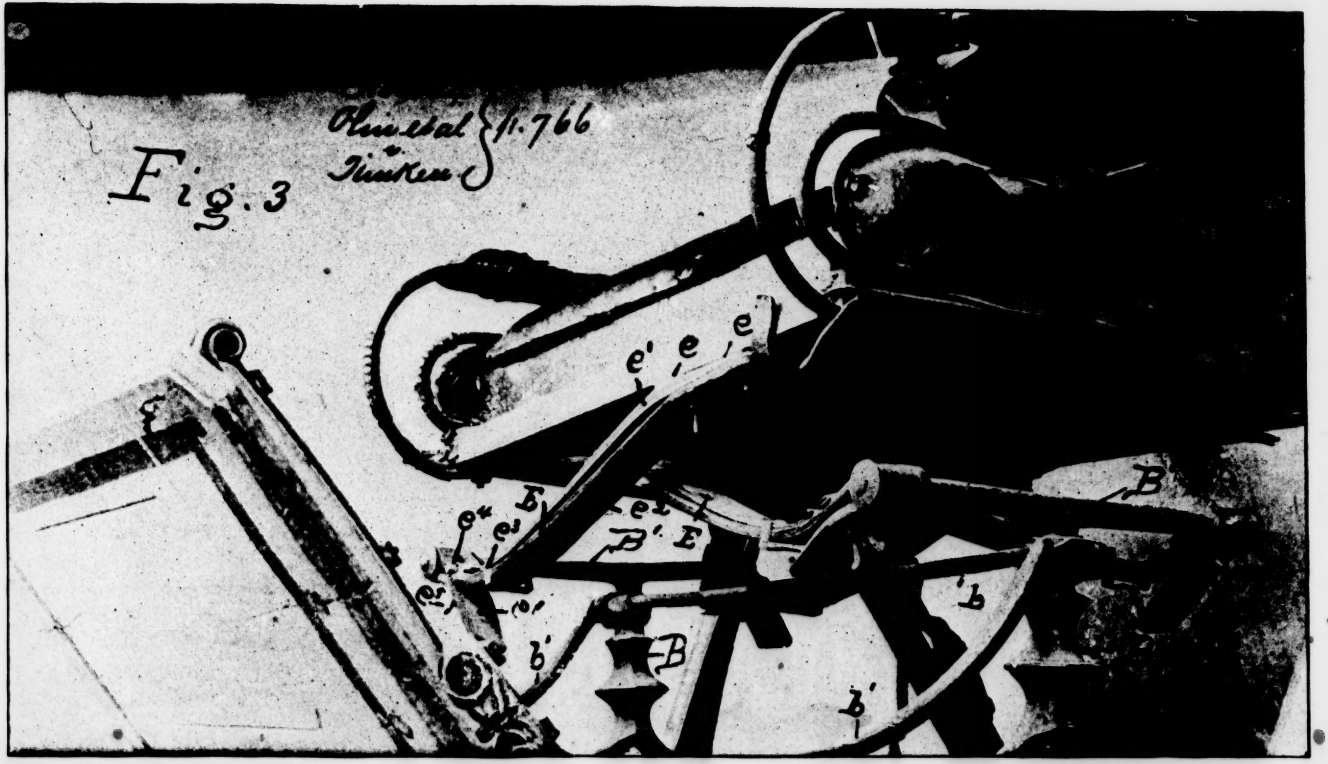


Fig. 3
Olin et al
Tinken
fl. 766
e'
e
e
E
B'
E
B
b
b'
B
b'

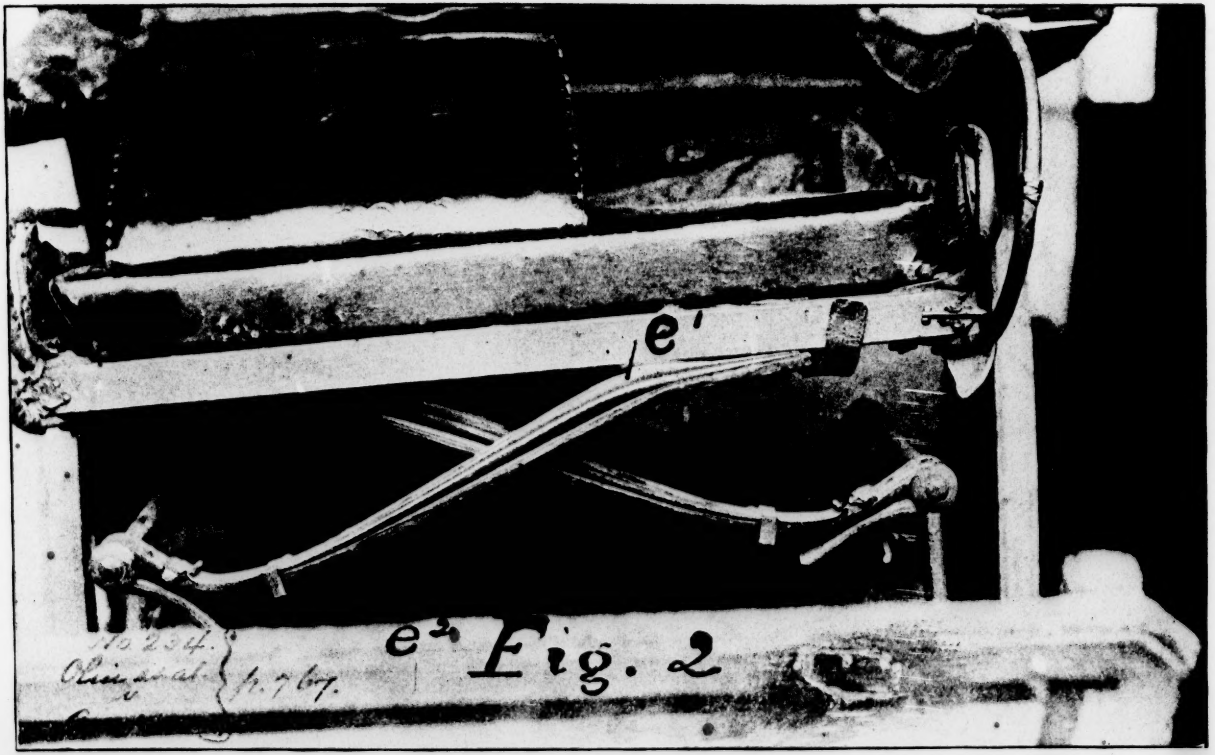
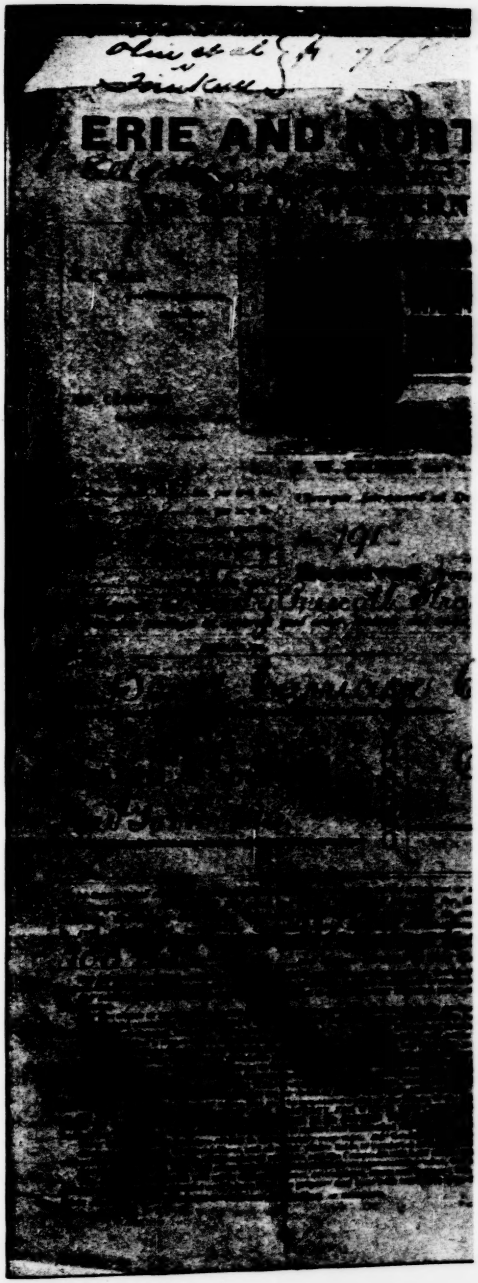


Fig. 2

No. 234.
Olinger et al. } p. 767.


ERIE AND

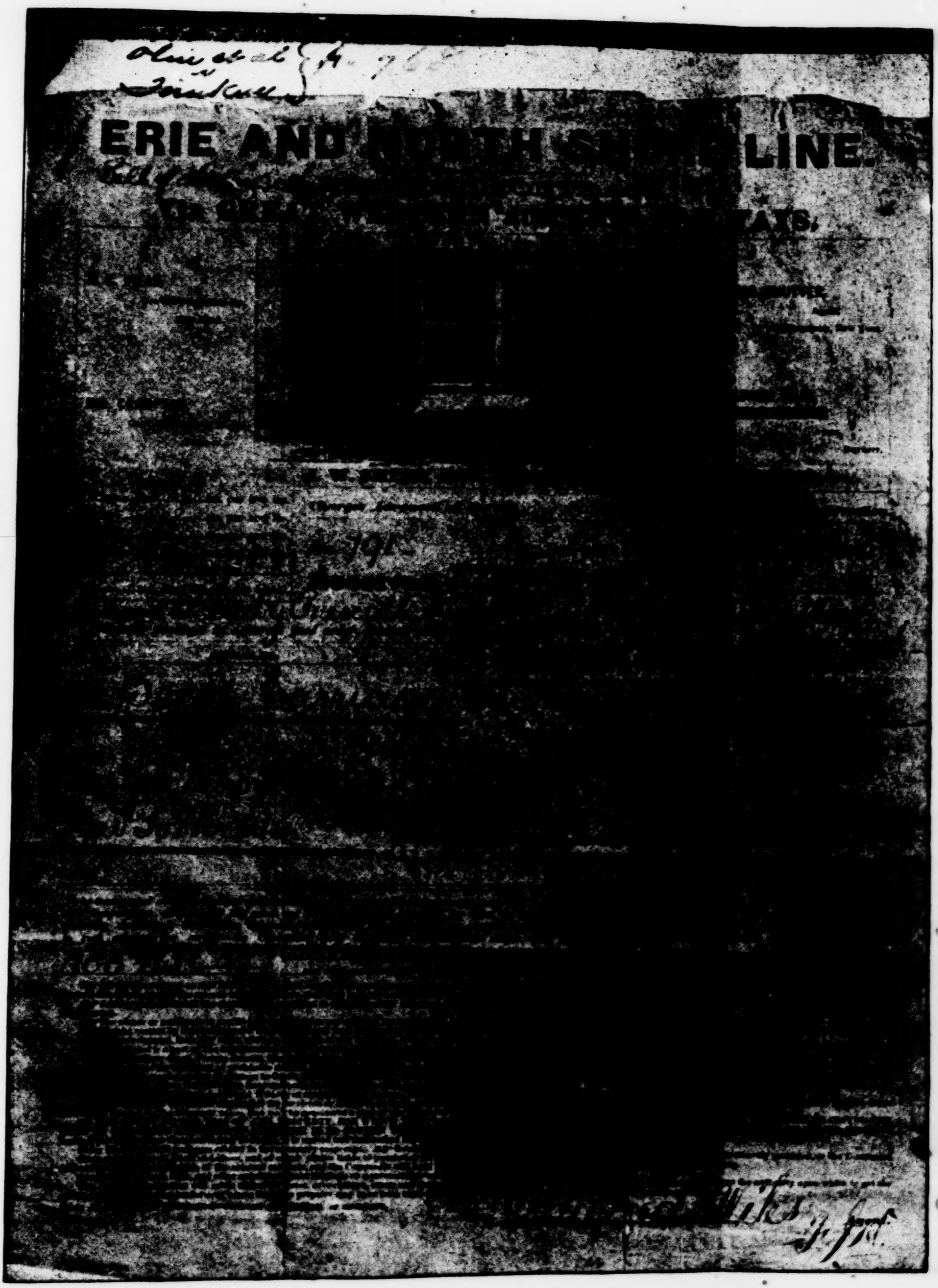

ERIE AND
LINE.

Fig. 1.

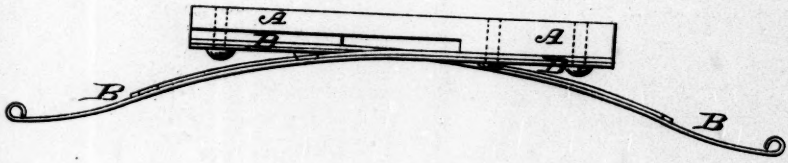


Fig. 2.

No. 234.
Oliver et al.
v.
Timken.
} p. 770 a

Witnesses:
Chas Nida
C. Sedgwick

Inventor:
D. B. Ruble
Munn & Co

OFFICES OF
Erie & North Shore Line.

J. W. SMITH, Gen'l Manager, Chicago, Ill.

GEO. L. CAREY, Agent, - 6 Bowling Green, N. Y.
EDWARD WELD, " - - - Boston, Mass.
A. HACKAY, " - - - - Chicago, Ill.
A. I. COOPER, " - - - - Milwaukee, Wis.
I. L. HAMER, " - - - - Duluth, Minn.
H. H. VERREY, " - - - - Burlington, Ia.
C. T. STEVENS, " - - - - St. Paul, Minn.
H. G. WHITNEY, " - - - - Peoria, Ill.
H. V. HEAD, " - - - - Quincy, Ill.
I. L. HAMER, " - - - - St. Joseph, Mo.
I. P. GAY, " - - - - St. Louis, Mo.

THROUGH BILL OF LADING No. 15.

OF THE

ERIE AND NORTH SHORE LINE,

And the White Cross Line of Steamers, from Detroit to London

OFFICES
STEAMSHIP LINES.

Shipped in apparent good order, by Alonzo Rolfe

the following property, marked and numbered as per margin, (contents of packages unknown and weights subject to correction).

Per Str "C. F. Trench" from Newyork Apl 10 -

Through Rate, _____ Gold per _____ @ $4.80 per £ _____

Gross Weight, 1640 lbs.

25/- per 50 per 40 c ft Ships pro., £ _____

Inland Charges, £ 2.11.0

£ _____

MARKS AND NUMBERS.	ARTICLES.	
Lady Prescott Strand Park Herne Bay Kent England	One boxed Carriage	No. 334 Oil and vr. Hinton 1769

To be delivered in like good order and condition at the aforesaid Port, unto Lady Prescott or to Her assigns, he or they paying freight, immediately on landing the goods, as per margin, with average accustomed, under the following terms and conditions, viz.:

That the said Erie and North Shore Lines and its connections, which vessels still property, shall not be liable for each & every loss or damage of any kind on any article whose bulk requires it to be carried on open cars, nor for loss or damage to perishable property of any kind occasioned by delays from any cause or by changes of weather; nor for loss or damage on any goods or property delivered, by the or other casualty while in transit or while in deposit or places of transhipment, or at depots or landings on all points of delivery; nor for loss or damage by fire, collision, or the dangers of Navigation while on Rivers, Bays, Lakes or Canals. All goods or property under this Bill of Lading will be subject at the owner's cost to necessary Cranpage or Lighterage, and is to be transported to the depots of the Companies or landings of the Steamboats or Forwarding Lines at the points consigned to, for delivery.

It is Further Agreed, that said Erie and North Shore Lines and its connections, shall not be held accountable for any damage or deficiency in packages other than cases shall have been receipted for in good order by consignees, or their Agents at or by the next Carrier beyond the point to which this Bill of Lading contracts. Consignees are to pay freight and charges upon the goods or merchandise in bale or parts of bale as they may be delivered to them.

It is further Stipulated and Agreed, that in case of any loss, detriment or damage done to or sustained by any of the property herein receipted for during such transportation, whereby any legal liability or responsibility shall or may be incurred, that Company alone shall be held answerable therefor in whose actual custody the same may be at the time of the happening of such loss, detriment or damage, and the Carrier at Noble shall have the full benefit of any insurance that may have been effected upon or on account of said goods.

And it is Further Agreed, that the amount of the loss or damage on consigning on for or it shall not upon the Carriers above mentioned, shall be computed at the value or cost of the said goods or property at the place and time of shipment under this Bill of Lading.

This Contract is executed and accomplished, and the liability of the Erie and North Shore Lines as Common Carriers thereunder, as limited to and by the first paragraph hereof, continues on the delivery of the goods or property to the Steamship or Steamship Company's Piers in New York, where the liability of the Steamship Company commences and ends herein.

And it is Further Agreed, that the property shall be transported from the port of New York to the port of London for the Erie and North Shore Lines, with liberty to ship by any Steamship or Steamship line, subject to the following terms and conditions, viz.:

To be delivered from the Ship's deck, where any Ship's responsibility shall cease, the sole of said, the Queen's enemies, pirates, robbers, thieves, vessels, Enemy of Nations or Rulers, restraints of Princes, Rulers or People, Loss or Damage arising from Insolvency or default of any owner, charterer, Master, Steamship or consort with other goods, risk of Explosion, explosion of the or any steam navigation, of whatever Nature or kind soever contained; whether any fire or cause of all Perils, dangers and accidents of the Seas, rivers, or any other conditions of whatsoever nature, whether any fire or cause of all Perils, dangers and accidents of the Seas, rivers, or any way connected with or by the Ship or Steamship or any part thereof, or the Master, Mariners, Engineers or others of the Ship, or of any of the Steamers or Steamships, the Shippers or owners of the goods or any part thereof, or the Agents of any of them, or by the act, neglect or default or omission of the Pilots, Mariners, Engineers or others of the Ship, or Ports, to another Port, in case of Damage thereto, or for the same, however; and while leaving during the voyage of all or any Port or Ports, or

770 DEFENDANTS' EXHIBITS SHIPPING BILL No. 3. Charles H. Rogers, Notary Public.

(Here follows shipping bill marked p. 769.)

Specification Describing a New and Useful Improvement in Wagon Springs.

Invented by DANIEL BOWMAN RUPLE, of Hazleton, in the county of Lucerne and State of Pennsylvania.

(Here follow diagrams marked p. 770*a*.)

Fig. 1 is a side view of a pair of my improved springs, shown as attached to a bar of a wagon-body.

Fig. 2 is an under-side view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish springs for wagons which shall be so constructed as to allow a greater length of spring to be utilized, giving greater elasticity to the springs and producing and easier riding wagon.

771 The invention consists in half springs attached to a wagon-body in such a way that their inner ends may pass or overlap each other to give additional strength, as hereinafter fully described.

A represents a bar of a wagon-body, to which the inner ends of the springs B are attached in such a way that the said inner ends may pass or overlap each other as shown in Figs. 1 and 2, enabling a greater length of spring to be utilized than is possible when the springs are constructed in the usual way.

When the springs B are applied to a side-bar wagon they are placed across the wagon, are bolted to cross-bars of the

772 wagon-body and their ends are shackled to the side bars.

When the springs B are attached to a side-spring wagon their ends are bolted to a longitudinal bar of the wagon-body and their ends are shackled to the ends of the cross bars or spring bars of the wagon gearing. The springs B may be made of one or more leaves as *amy* be desired or as the weight to be carried in the wagon may render necessary.

773 Having thus described my invention, I claim as new and desire to secure by letters patent—

The half springs B, attached to a wagon body in such a way that their inner ends may pass or overlap each other to give additional length, substantially as herein shown and described.

DANIEL BOWMAN RUPLE.

Witnesses:
JOHN GORMAN.
T. R. COLLINGWOOD.

774 A. D. 1853. No. 2642.

Letters patent to John Josias Catterson, of Islington, in the county of Middlesex, civil engineer, for the invention of "improvements in carriage springs."

Sealed the 12th day May, 1854, and dated 15th November, 1853.

Specification in pursuance of the conditions of the letters patent filed by the said John Josias Catterson in the Great Seal Patent Office on the 15th May, 1854.

To all whom these presents shall come I, John Josias Catterson, of Islington, in the county of Middlesex, civil engineer, send greeting:

Whereas her most excellent majesty Queen Victoria, by her letters patent, bearing date the fifteenth day of Nov., in the year of our Lord one thousand eight hundred and fifty-three, in the seventeenth year of her reign, did, for herself, her heirs, and successors, give and grant unto me, the said John Josias Catterson, her special license that I, the said John Josias Catterson, my executors, administrators, and assigns, or such others as I, the said John Josias Catterson, my executors, administrators, and assigns, should at any time agree with and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel islands, and the Isle of Man, an invention for improvements in carriage springs upon the condition (amongst others) that I, the said John Josias Cat-
775 terson, by an instrument in writing under my hand and seal, should particularly describe and ascertain the nature of the said invention and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calender months next immediately after the date of the said letters patent.

Now know ye that I, the said John Josias Catterson, do hereby declare the nature of the said invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement thereof, reference being had to the accompanying drawings and to the figures and letters marked thereon, that is to say:

I combine together two long single springs with one double spring or four long single springs with two double springs in manner hereinafter described; and I wish it to be understood that by a "double spring" I mean a spring fixed at or near its center and having two elastic arms, and that by the term "a long single spring" I mean a spring which is fixed at one end and has therefore only one elastic arm and is of a length exceeding one-half of that of the double spring which is applied in combination with it.

(Here follow diagrams marked pp. 779 & 780.)

A.D. 1853. Nov. 15. № 2642. Batterson.

FIG. 1.

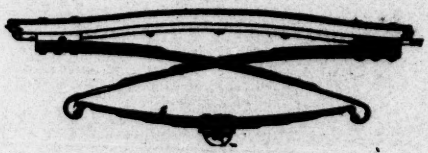


FIG. 6.

FIG. 7.

FIG. 9.

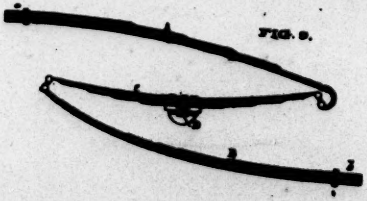
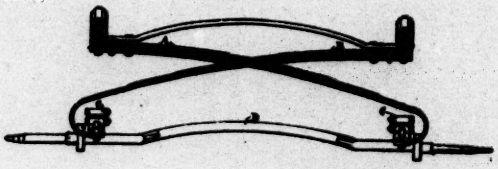


FIG. 10.

FIG. 11.



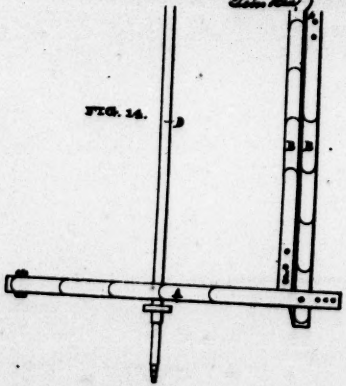


FIG. 14.

Figure 1 in the accompanying drawing is an elevation shewing one of my improvements. Figure 2 is a plan of the same. A is a long single spring fixed to the framing of the carriage at *a*. B is a similar long single spring fixed to the framing at *b*. C is a double spring, the center of which is fixed to the axle D. This spring C may be constructed in various different manners; thus it
776 may be made of two single springs fixed to the axle as shown separately in plan in Fig. 3, or it may be one long spring curved as shown in Fig. 4, or placed diagonally as shown in Fig. 5, or the spring C may be a straight spring placed parallel to the long single springs A and B, as shown by the dotted lines, Fig. 6, and the ends of the long springs may be curved or bent to facilitate the connection of them to the ends of the double spring, or the two long single springs A and B may be sufficiently far apart, as shown in Fig. 7, to permit of their ends being connected to the opposite ends and on opposite sides of the spring C. Various other similar modifications may be made. Fig. 8 is a plan showing and axle D with a set of springs similar to those shown in Figs. 1, 2, and 3 at each end of the axle.

Another arrangement of the two long single springs A and B and the double spring C is shown in elevation in Fig. 9 and in plan Fig. 10. One of the long single springs A is placed above the spring C, and the other single spring B is placed below the spring C, so that in this arrangement all the three springs are in the same plane. Figure 11 is an elevation and Fig. 12 is a plan of an arrangement of six springs somewhat similar to that shown in Fig. 8, but with the double springs C C′ placed at right angles instead of parallel or nearly so to the long single springs A B and A′ B′. Thus the springs A A′ are connected to the double spring C′ and the springs B B′ are connected to the double spring C. The double springs C C′ are connected to the axle D as before, so that the long single springs are arranged transversely to the carriage instead of being placed in the direction of its length, as in Fig. 8.

777 Fig. 13 is an elevation and Fig. 14 is a plan of an arrangement of six springs in which the double springs C are fixed to the axle D as before, and the long single springs A A are placed over them, as in Fig. 8, while the springs B B are placed transversely to the carriage, as in Figs. 11 and 12. The letters *a* and *b* indicate the parts of the springs which are fastened to the carriage.

It will be seen that the amount of elasticity is similar at each end of the springs C, in all the arrangements, and consist of the elasticity of half the spring C, together with that of one of the long single springs. The springs are represented in the drawing as applied to the axles of ordinary two-wheeled or four-wheeled carriages, which axles do not revolve. In applying them to railway carriages the spring C would rest upon the axle boxes instead of being attached to the axles.

Having now described the nature of my invention and in what manner the same is to be performed, I wish to be understood that what I claim is—

Firstly. The combination of one double spring with two long

single springs placed side by side as hereinbefore described in reference to Figs. 1, 2, 6, 7, and 8, or one above the other, as in Figs. 9 and 10.

Secondly. The combination of two double springs with four long single springs arranged side by side in pairs, as in Figs. 11 and 12, or two of which are arranged side by side and the other two placed over the double springs, as in Figs. 13 and 14, in manner hereinbefore described.

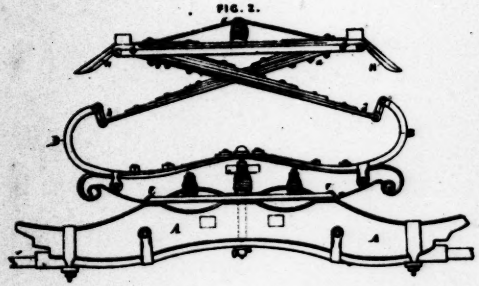
778 In witness whereof I, the said John Josias Catterson, have hereunto set my hand and seal this thirteenth day of May, in the year of our Lord one thousand eight hundred and fifty-four.

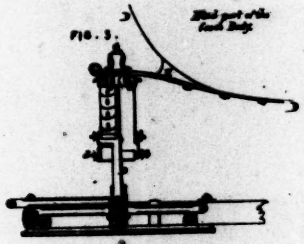
JOHN JOSIAS CATTERSON. [L. S.]

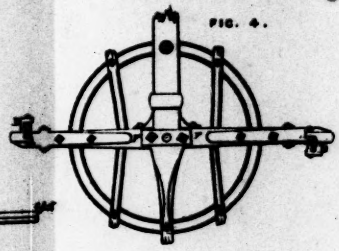
Witness:

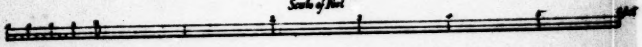
CHARLES COWPER,

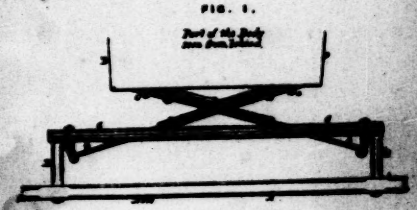
20 *Southampton Buildings, Chancery Lane.*











781 A. D. 1817. No. 4092.

Springs of Wheel Carriages.

Manton's specification.

To all to whom these presents shall come I, William Manton, of South street, Grosvenor square, in the county of Middlesex, coach-maker, send greeting:

Whereas I did, by petition, humbly represent to his present majesty, King George the Third, that I had invented a certain "improvement in the application of springs to wheel carriages; his majesty was pleased to issue his letters patent under the great seal of Great Britain, bearing date at Westminster the twentieth day of January, in the fifty-seventh year of his reign, which letters patent do give and grant unto me, the said William Manton, and to my executors, administrators, and assigns or to my servants or agents his said majesty's especial license to make, use, exercise, and vend my said invention within England, Wales, and the town of Berwick-upon-Tweed and to have and enjoy the whole profit and advantage arising by reason of the said invention during the term of fourteen years from the date of the said letters patent, by which his majesty also requires and strictly commands all his subjects whatsoever within England, Wales, and the town of Berwick-upon-Tweed that during the continuance of the said term of fourteen years they shall not, either directly or indirectly, make, use, or put in practice my said invention or any part of the same or in any ways counterfeit, imitate, or resemble the same; the said letters patent also
782 contain a proviso obliging me, the said William Manton, to particularly describe and ascertain the nature of my said invention and in what manner the same is to be performed by an instrument in writing under my hand and seal, and to cause the same to be enrolled in his majesty's high court of chancery within six calender months after the date of the said letters patent:

Now know ye that in the fulfilment of the said proviso I, the said William Manton, have executed this instrument, by which I do declare that my said invention is described and ascertained in manner following—that is to say:

My improvement in the application of springs to wheel carriages consists in placing the springs which are to support the body of the carriage in a transverse or cross position, so that the length of the springs will be in a direction from side to side of the carriage, as represented by the drawings hereunto annexed, and that each spring shall be fixed to the body or suspended part of the carriage on one side thereof by one end of the said spring, which spring shall extend crossways beneath the body of the carriage and be attached to the frame or carriage on the opposite side to that side on which the other end of the same spring is fastened to the body of the carriage.

(Here follows diagram marked p. 786.)

This is shown in Fig. 1, which is a view of part of a gig body and the axletree to show the application of the springs. A is the axletree; B B, blocks fixed on the axletree to support the shafts, which with their cross-rail C C form a frame. Upon this frame the body D D is placed. *a b* is one of the springs and *c d* the other. Both springs are bolted or otherwise firmly fastened to the under side of the body D at their thick ends *a* and *c;* the other
783 ends *b* and *d* of the springs are received in shackles, loops, or links, which are suspended from the shafts or frame and allow the ends *b* and *d* of the springs some play. The same figure also shows clearly how the springs cross each other, but a sufficient interval must be left between the two springs, that they will not touch or rub against each other where they cross. The figure is taken at the hind part of the gig and similar cross springs may be applied at the fore part. The springs are suspended by the shackles, loops, or braces in order that the ends of the springs may expand and contract—that is, advance to and recede from each other—when the body rises and falls by jolts and irregular motions.

Figures 2 and 3 show the same improvement of cross-springs for a four-wheeled carriage. A A is the fore axle bed; F, the fore transome, which is supported upon the fore axle bed and united thereto by the perch bolt in the usual manner. On the top of the fore transom F irons are bolted, which turn up, B B, and have heads at the upper ends to suspend the shackles *b* and *d* from; to these shackles the ends of the springs *d c* and *b a* are united in the same manner as the last described.

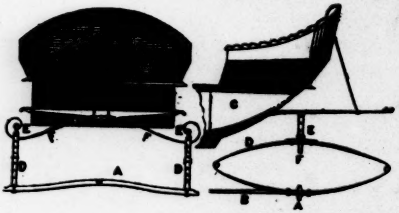
Fig. 3 is a side view of the fore part of the carriage and shows how the two springs *a b* and *c d* are placed a small distance apart, that they may not rub together where they cross.

Fig. 4 shows a plan of the fore transom, to explain how the irons B are carried a little sideways when they turn up in order to hold the shackles so that the springs shall clear each other.

784 The thick ends *a* and *c* of the springs are fastened to a bar, G G, on the ends of which bar irons H are fastened, and they go beneath the body D D of the carriage, and are firmly fastened thereto, so as to fix the bar G firmly to the body; K, Fig. 2, is an iron brace, which is applied on the top of the bar G to keep the same from bending by the action of the springs. In some cases the springs may be fixed immediately to the body of the carriage as represented in the gig body, Fig. 1, and then, if there is sufficient substance of wood in the body or boot or wherever the springs are to be fastened, there will be no necessity for the bar G; but be it observed that the particular manner of attaching and affixing the springs in their places may be left to the discretion of the workman, who must adapt the springs, in respect to their dimensions, weight, strength, and mode of attachment, to their places, according to the particular kind of carriage to which they are to be applied, for I confine my improvement in the application of springs to wheel carriages to the placing of such springs in a transverse direction when one end of each spring is attached to the body of the carriage on one side (for instance, the left-hand side), and the other end of the same

"GROOT'S PATENT CROSS SPRING,"

No. 234.
Olin et al.
v.
Trinkerw.
p. 787



upon which LETTERS PATENT of the United States, No. 92,525, were, on the 13th day of July, 1869, granted to GEORGE R. GROOT, of the City of Cincinnati, and County of Hamilton, State of Ohio, IMPROVEMENTS IN CARRIAGE SPRINGS.

spring is attached by a shackle to the carriage or frame on the opposite side (for instance, on the right-hand side), the manner of which has been hereinbefore explained. In all cases the springs, being fixed fast at one end, must be suspended by a shackle at the other end to allow them play to expand or contract.

In witness whereof I, the said William Manton, have hereunto set my hand and seal this eighteenth day of July, in the year
785 of our Lord one thousand eight hundred and seventeen.

WILLIAM [L. S.] MANTON.

Signed, sealed, and delivered in the presence of—
WILL. ALLWAY.

(Here follows diagram marked p. 787.)

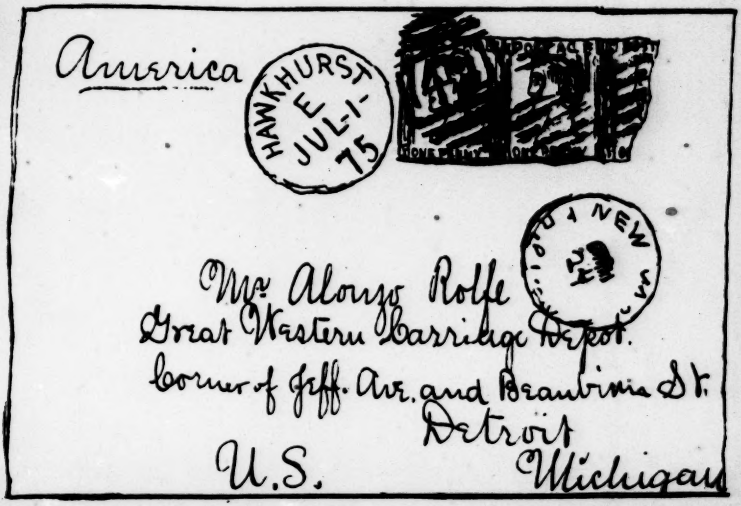
788 DETROIT, *Dec.* 31, 1874.

Mr. Alonza Rolf, Esq., to Shannessy and Nicholson.

To painting twenty-five swell body butters	$200 00
To painting side spar wagon	12 00
	$212 00
Credit by cash	100 00
	$112 00

Def'ts' Ex. 1, painting bill.

789



790 DEFENDANTS' EXHIBIT C. W. PRESCOTT LETTER, JUNE 10, 1875. Charles A. Rogers, Notary Public.

ISENHURST, HAWKHURST, SUSSEX, ENGLAND, *June* 10, '75.

MY DEAR SIR: I am very glad to say that my buggy has arrived quite safely I am very pleased indeed with it, and everybody who has seen it admires it very much. My brother, Sir George Prescott, with who- I am staying, has begged me to write to you and order one for him. Sir Geo. would like to have his made an inch or two wider in the seat if you could manage it without spoiling the appearance. He would like his made with a hood or top and painted and finished exactly like mine. Please forward to Sir George the description and price of the buggy & he will forward you a letter of credit. I trust you will do your best to make him the best and prettiest buggy, as I have no doubt that it may be the means of your getting other orders. Sir Geo. only requires it for one horse & therefor- would not require a pole.

Believe me, yours truly, C. W. PRESCOTT.

Mr. Alonzo Rolfe.

791 DEFENDANTS' EXHIBIT C. W. PRESCOTT LAWRENCE LEITER. Charles H. Rogers, Notary Public.

LAWRENCE, KANSAS.

DEAR SIR: Will you please put the buggy for my brother, Sir Geo. Prescott, in hand immediately? I will send you a cheque in the course of a few weeks for $325.00, the price he wishes to pay. Please direct it Isenhurst, Buxted Station, London & Brighton line, England. I am on my way west & the cheque will be sent through W. A. Harris, of this town. I am very pleased with the buggy you sent me & it has been greatly admired.

I hope you will send my brother an equally good one. I should have stopped over to see you on my way out, but was very pressed for time & could not manage it.

Believe me, y'rs truly, C. W. PRESCOTT.

792 Power job printing establishment.

HAZLETON, PA., *Jan.* 3, 1877.

Messrs. Bantz & Lindeman to J. S. Sanders, Dr., publishers of Hazleton Anthracite Daily and Weekly Sentinel.

Plain and fancy printing of every description.
Monthly settlements, Walnut hall, Broad street, Hazleton, Pa.

1877.

Dec. 5. To *to* inst. adv. of partnership, daily .65	3 00
By cash Jan 23, '78	2 00
Balance	1 00

Defendants' Exhibit Bautz & Lindermann Bill, Philip V. Weaver, notary public.

793 And afterwards, to wit, on the 17th day of January, A. D. 1890, the following appeal bond was filed in the clerk's office of said court, clothed in the words and figures following, to wit:

Appeal Bond.

Circuit Court of the United States, Southern District of Ohio, Western Division, *ss:*

HENRY TIMKEN
vs.
THOMAS D. OLIN and EDWIN D. OLIN.

Know all men by these presents that we, Thomas D. Olin and Edwin D. Olin, as principals, Dana W. Hartshorn and Martin Weber, as sureties, are held and firmly bound unto Henry Timken in the sum of one thousand dollars, to be paid to the said Henry Timken, his executors or administrators; to which payment, well and truly to be made, we bind ourselves and each of us, jointly and severally, and our and each of our heirs, executors, and administrators, firmly by these presents.

Sealed with our seals. Dated this 17th day of February, 1890.

Whereas the above-named Thomas D. Olin and Edwin D. Olin have taken out an appeal to the Supreme Court of the United States of America to reverse the decree rendered in the above-entitled action by the circuit court of the United States for the southern district of Ohio:

Now, therefore, the condition of this obligation is such that if the above-named Thomas D. Olin and Edwin D. Olin shall prose-
794 cute their said appeal to effect and answer all costs if they shall fail to make good their plea, then this obligation to be void; otherwise to remain in full force and virtue.

THOS. D. OLIN.
EDWIN D. OLIN, [SEAL.]
Per T. D. OLIN.
DANA W. HARTSHORN. [SEAL.]
MARTIN WEBER. [SEAL.]

Sealed and delivered in presence of—
ROB'T C. GEORGI.
BOYD E. DILLEY.

The above security is approved.

GEO. R. SAGE,
District Judge of the United States, S. D. O.

SOUTHERN DISTRICT OF OHIO, *ss:*

I, Dana W. Hartshorn, one of the sureties above named, do solemnly swear that after paying my just debts and liabilities I am worth ten thousand dollars in real estate in my own name situate in the State of Florida and personal property worth two thousand dollars in Hamilton county, Ohio.

DANA W. HARTSHORN.

Sworn to before me the 17th day of Feb., 1890.

ROB'T C. GEORGI, [SEAL.]
Deputy Clerk U. S. Circuit Court, S. D. O.

795 SOUTHERN DISTRICT OF OHIO, *ss:*

I, Martin Weber, one of the sureties above named, do solemnly swear that after paying my just debts and liabilities I am worth ten thousand dollars in real estate in my own name situate in the county of Hamilton, in said district.

MARTIN WEBER.

Sworn to before me the 17th day of February, 1890.

ROB'T C. GEORGI,
[SEAL.] *Deputy Clerk U. S. Circuit Court, S. D. O.*

796 THE UNITED STATES OF AMERICA, }
Southern District of Ohio, Western Division, } *ss:*

I, Benjamin R. Cowen, clerk of the circuit court of the United States within and for the division and district aforesaid, do hereby certify that the foregoing is a true, correct, and complete transcript of the proceedings had by and before said court in the above-entitled cause as the same appears of record and on file in the clerk's office of said court.

In witness whereof I have hereunto set my hand and affixed the seal of said court, at Cincinnati, Ohio, this 6th day of October, A. D. 1890.

[Seal of the Circuit Court, South'n Dist. of Ohio.]

B. R. COWEN, *Clerk,*
By JANIE W. COWEN, *Deputy.*

Endorsed on cover: Case No. 14,243. S. Ohio C. C. U. S. No. 234. Thomas D. Olin and Edwin D. Olin, appellants, *vs.* Henry Timken. Filed October 11, 1890.

OCTOBER TERM

No. 284.

THOMAS D. OLIN AND EDWIN D. G

vs.

HENRY TIMKEN.

BRIEF FOR APPELLANTS.

GEO. J. MURRAY,

Counsel for

Supreme Court of the United States.

OCTOBER TERM, 1893.

THOMAS D. OLIN AND EDWIN D. OLIN, Appellants,
vs.
HENRY TIMKEN.

No. 234.

BRIEF FOR APPELLANTS ON ABOVE APPEAL.

The bill of complaint in this case was filed to restrain the infringement of three letters patent: Re-issue patent No. 9,542, January 25, 1881, being a re-issue of patent No. 157,430 to Tilton & Stivers for springs for vehicles, dated December 1, 1874; patent No. 197,689 granted to Henry Timken, November 27, 1877, for carriage springs; and patent No. 239,850 granted to C. W. Saladee April 5, 1881, for road wagon.

The bill of complaint alleges conjoint action of these patents, and alleges that the device made by defendants infringes upon all of them.

The original bill was filed January 30, 1886, upon the Tim-

kin patents No. 197,689 alone. The answer to this bill was filed March 26, 1886, and presents the following defences:

1. That complainant, Timkin, was not the original and first inventor of the said alleged improvement in springs.

2. That the said letters patent, No. 197,689, were null and void for want of utility and for want of invention.

3. That said letters patent are null and void for want of a sufficient description and specification.

4. A denial that defendants have infringed.

5. That said alleged improvement had been patented and described in printed publications prior to said Timken's supposed invention thereof.

6. A denial that said letters patent are, or were, granted for any patentable subject matter within the Patent Acts of the United States.

7. That the said invention had been known to divers persons named in the answer previous to the alleged invention of Timken, and alleges that defendants have the right to manufacture the vehicle springs they had theretofore made, under authority and by virtue of the right vested in them under United States letters patent No. 246,571, granted to W. H. Stickle for vehicle springs, dated August 30, 1881, and re-issued to defendant, T. D. Olin, August 21, 1883, as re-issue No. 10,372, which letters patent are owned by defendants.

Replication was filed May 15, 1886.

Nothing further was done in the matter until October 30, 1886, when complainant obtained leave of Court to file an amended bill, alleging also infringement of re-issued patent to Tilton & Stivers and the Saladee patent above referred to.

Answer to this amended bill was filed December 9, 1886, setting up the same defences as to the original bill, and the additional defence as to the Tildon & Stivers re-issued patent that said re-issue was utterly void, because not for the same invention as the original patent, and it being for inventions not shown, described or suggested in the said original patent.

Replication was filed December 18, 1886 (Rec. pp. 1 to 29 in-

clusive). The answer was again amended, setting up public and prior use and the names of the parties to whom such use was known. (Rec. 298).

The cause came on to be heard before His Honor, Judge Sage, who rendered an opinion in which he held that the patents sued on were valid, that defendants infringed the single claims of the Timken and Saladee patents, and the second, third and fifth claims of the Tilton re-issued patent. (Rec. pp. 480–481).

On petition the cause was re-opened for further proofs, a second amended answer filed, further proofs were taken, and the cause came on for hearing before Judge Sage, who rendered a second opinion in which he held that the defendants infringed the single claims of the Timken and Saladee patents, and the third, fourth and fifth claims of the Tilton patent, instead of the second, third and fifth claims. (Rec. pp. 488, 489, 490). A decree was entered perpetually enjoining defendants, and referring the case to B. R. Cowan as Master, to take and present account of profits and damages accruing to complainant by reason of the infringement. Proofs were taken before the Master, an account of all the springs made and sold furnished to the Master by defendents, which account was disputed by complainant's counsel, and defendant ordered to produce the books. (Rec. pp. 497–502).

Thereupon, April 23, 1889, defendant T. D. Olin was produced before the Master, his deposition taken, and the books of account submitted. Complainant's council then offered the evidence taken by complainant in chief, and rested his case. (Rec. p. 524). As no licenses had been introduced in evidence and no profits shown, defendants rested. Afterward, May 13, 1889, to which time the hearing was adjourned, complainant accepted the account which had been filed by defendants, and previously rejected by him, as to the number of springs made and sold, and elected to take damages instead of profits. (Rec. p. 534).

On the 15th day of July, 1889, the Master filed his report finding no profits, but assessing the damages at $2.00 per set for springs made during the years 1883, 1884 and 1885, and $1.00

per set for the springs made during the years 1886, 1887, 1888 and 1889, amounting together to $27,897.75. The testimony taken by the Master, the accounts filed, and the other papers were filed with the Court. (Rec. p. 499].

Exceptions were filed, in substance, as follows:

1. The Master found complainant damaged to the amount of license fees fixed by complainant, whereas no license fees had been proven, no license introduced in evidence, and nothing but hearsay testimony introduced in relation to them.

2. The Master found, contrary to the evidence, that defendants had full legal notice that they were infringing complainant's rights, whereas the evidence shows that they had taken the advice and opinion of four counsel that the springs they were making did not infringe upon either of complainants patents.

3. The Master disregarded the testimony of the witnesses called by complainants to the effect that the springs sold by defendants were nearly all purchased from complainant's licensees.

4. The Master considered the account filed by defendants after the same was rejected by complainant and withdrawn by defendants.

5. The Master returned profits made by defendants, although none had been proven, and profits were waived by complainant.

6. The Master considered testimony taken for the hearing in chief, which testimony was not brought before the Master in making up the account, so that defendants might have answered or explained the same.

7. The Master ignored the testimony relating to what is known as the combination gear sold by defendant, and awarded damages upon said gears, whereas the proof is that complainant's springs could not be and never were used upon such gear.

8. The Master erred in assuming, in the absence of proof, that had defendants not sold the springs they did sell, complainant would have sold his springs.

9. As complainant proved no damages, the Master erred in not returning merely nominal damages.

10. The Master ignored the testimony of the witnesses that there was no fixed license fee for the Timken spring, and that license was granted at reduced rates to parties operating under their own patents.

11. The Master disregarded the order referring the case to him. (Rec. p. 535).

The case came on to be heard on exceptions and an opinion rendered by Judge Sage overruling the same and confirming the Master's report.

HISTORY OF FACTS.

FIRST POINT.

Neither of the patents sued upon can be considered in any sense foundation patents. The claims of each patent are to combinations relating to what is known as side-bar buggies and wagons, the side-bar gear and buggy body being elements in each combination. Defendants manufactured no buggies or vehicles of any kind, but simply purchased and manufactured sectional springs, fitted them on wooden bars to be attached to vehicles, and sold the spring-bars in this condition. Complainant's *prima facie* case consisted in introducing the three patents sued on, producing a set of springs which was purchased for Mr. Timken from the defendants, offering the same in evidence; also introducing in evidence a copy of The Carriage Monthly with the advertisement of the Olin springs and a cut of the gear with the springs attached, and a stipulation that the said springs were manufactured by defendants and the advertisement inserted by their authority.

About 1873 or 1874 the side-bar buggy or road wagon became popular, being introduced largely and known as The Brewster Side-Bar Vehicle. This vehicle was made under the patent granted to Wood May 27, 1873, No. 139,348. (Rec. pp. 68, 582). The patent has been before the Court on several occasions; first, in Brewster vs. Parry; second, Brewster vs. Tuthill, and finally before Judge Wallace in Brewtter vs. Shuler; and in the last case being held void for want of invention, and the re-issued patent,

dated August, 1874 (Rec. p. 584), held void because improperly obtained.

The springs under this Brewster wagon were what is known as semi-elliptical springs, for coupling the body to the side-bars, and similar springs turned in the reverse position for coupling the ends of the side-bars and securing them at one end to the hind axle and the other end to the head block or bolster. The original patent was limited to what is known as the combination gear; that is having two sets of springs, the one on which the side-bars rest, and the other the cross-springs coupling the body and side-bars. The re-issue of this patent was obtained to cover what was known as the rigid gear, which has the same cross-springs for the body but the side-bars secured directly upon the rear axle and head-block, precisely as are the springs in the Tilton, Timken and Saladee patents, upon which this suit is brought. The object of the re-issue was to cover in a number of infringers who had used the Brewster cross-springs on a rigid gear.

The popularity of the Brewster wagon induced a great many persons, about 1874 or 1875, to attempt to attain the same results and to evade the terms of the re-issued patent. What was known as a double sweep Concord spring, which was a semi-elliptic spring almost identical with the cross-spring of Brewster, except when used on a wagon they were long enough to extend from the rear axle to the head-block. In fact, they were side-springs instead of cross-springs. Brewster shortened these springs and extended them across from side-bar to side-bar, and all the other inventors, Timken, Saladee and Tilton, and the numerous others that have been set up in the answer who had made similar springs prior to any invention of Mr. Timken, Tilton or Saladee, took these same Concord side-springs, and instead of shortening them at the ends, cut them in two in the middle and crossed them past each other, extending from the middle or one side of the buggy-body to the cross-bar upon the opposite side.

Kierolf, Rec. p. 56.
Fisher, Rec. p. 102, Ans. 6.
Priest, Rec. p. 121, Ans. 10.

Ruple, Rec. p. 303, Ans. 6.
Kemerer, Rec. p. 322.
Bloom, Rec. pp. 333, 342, 344.
Henry Timpken, Rec. p. 358.
Harrison, Rec. pp. 452, 453, Ans. 22, 27 and 28.

The fact that many of these parties, unacquainted with each other, and in different parts of the country, did the same thing, about the same time and for the same purpose, is conclusive that what each of them did with the Wood or Brewster buggy before them, did not amount to invention. We have introduced in evidence, in anticipation of the Saladee and Timken patents, springs manufactured by witnessess Ruple, Bloom, Kierolf, Fisher, Priest, Bushway, Wright and Rolf. That these parties were all attempting to evade the popular Brewster wagon is plain from the testimony.

Kierolf, Rec. pp. 68–69, XQ. 96 to 103.
Matlock, Rec. p. 191 Answer 18.
Wright, Rec. p. 215, XQ. 98.
Rolf, Rec. p. 253, XQ. 18.
Rand, Rec. p. 280–281, Answer 26.
Henry Timpken, Rec. p. 400–401, Answer 14.

It is clear, from the facts, that all these parties, including Timken, Tilton and Saladee, endeavored to evade the terms of the re-issued Wood patent embodied in the Brewster wagon, and perhaps the defendants may be considered in the same boat, but it is needless to say that no prejudice should attach to any of them on this account.

Every one has a right to evade a patent claim. The only prohibition is against infringing it. The description which a patentee annexes to his patent is not only designed to instruct others how to practice the invention, but also to point out the limits which the patentee has put upon it. Anyone has the right to go outside these limits, and is entirely justified in accomplishing the same result outside of them, but no one has a right to patent a trifling improvement upon the thing shown and described, although not claimed in the prior patent, and then attempt to broaden the claim to include what the prior patentee might have claimed had the state of the art not precluded him.

STATE OF THE ART.

SECOND POINT.

Before examining the state of the art, it would be well to look at the claims of complainant's patents here in suit, and held to be infringed by the Court below. The third claim of the re-issued patent includes as a necessary element two springs, *side by side and connected together*. The fourth claim includes the same elements, to-wit: *the connected cross-springs*, and a re-enforcing plate having end flanges. The fifth claim of the re-issue is substantially, if not identically, the same as the single claim of the Timken. Both include the two springs crossing each other side by side and attached to a cross piece, with the additional limitation in the Timken claim that these springs must be connected at the heavy ends, at the opposite side of the wagon from which the light ends are connected to the side bars.

The re-issued patent is absolutely void for the reason that claims 3 and 4, if broadly construed in connection with the new matter introduced in the specification, making the central connection only a *preferable* mode, and the new fifth claim, which was not in the original, covers matter recognized as old in the original patent, regardless of what the prior state of the art might be, so far as this patent is concerned, outside of the original patent itself. The re-issue is for an entirely different invention and was applied for and obtained more than six years after the original patent, with claims broad enough to include all the springs made and testified to by the different witnesses in this case, including Priest, Rolf, Ruple and Bloom springs, which are clearly proven to have been made, if not prior to the date of the original Tilton & Stivers patent, at least many years prior to the to the application for re-issue.

The original patent states the object of the invention to be to provide carriages or light vehicles with springs which will obviate all rocking motion of the body supported thereon, and cause the latter to be always maintained in a horizontal position when moving up or down or when in a stationary position. And

further along in the specification: "It is well known that elliptic or semi-elliptic springs secured to the center of the cross-bar supporting a carriage body will permit the same to rock from side to side. It is objectionable for various reasons."

Now the inventor describes the kind of spring that had been used before either the elliptic or semi-elliptic spring, like the Brewster and many others of this class, and he proposes to remedy it by taking the spring of the form shown (which is admittedly old) which springs, he says, may be properly termed sections of semi-elliptic springs (quarter elliptic springs), arrange them to cross each other at the center of the cross-bar upon which the body is placed, providing each spring with a socket at the crossing proint, and passing the axis or pivot bolt through both springs and securing it by a nut, so that any weight placed upon either side of the body will be taken up by both springs, the bolt coupling them together preventing either from moving independently of the other. And he says the invention consists, first. in the employment of two independent cross-leaf metal springs, the ends of which are rigidly secured to the opposite ends of the cross-bars supporting the vehicle body, each spring being formed or provided with a socket, and the two sockets meeting each other at the center of the body supporting bar, so as to enable the axis or pivot bolt to be passed through both sockets, for enabling the springs to turn thereon when the body is lifted or depressed; and the invention further consists in securing a bar or re-enforcing plate to the under side of the body supporting bar, said plate being provided with patent flanges at both ends to serve as bearing points for the ends of the springs, in order to prevent any latteral movement of the same, and to serve in connection with the fastening bolts to securely hold the springs in place.

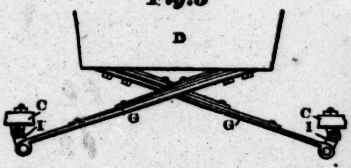
Each of the original claims is limited to the two springs hinged together at the crossing point. In the first claim the words "hinged together at the crossing point," are used, and in the second claim the two springs are provided with *a socket and with a pivot or axis bolt.* In the third claim the springs are side by side and *connected together* with side sills, and cross-bars for

supporting the body in a horizontal position, and the fourth claim is for the re-enforcing plate and *the connected cross-springs* These are all combination claims and there is no pretense in the specification that there is anything new with the inventor except the connecting springs and cross-bar having the flanged ends. That there was no mistake in this original patent would be shown from the patents and publications offered in evidence; the form of springs was old, the rigid gear, to which the light ends of the springs are coupled was old; the springs coupled at their crossing points were old in many different forms. The only thing, in fact, new in this peculiar class of a buggy was the coupling bolt, D, the bolt passing through the sockets in that portion of the springs centrally underneath the body and coupling them together. Omit this bolt from the springs shown in the original patent and we have the Timken patent, or rather the Timken springs as they were used identically, both as to shape and manner of attachment, both to the body and the side-bars, with the immaterial difference that the swinging shackle shown in the Tilton patent has been replaced by the rigid or Brewster shackle, both of which shackles are old and well known, and were used for the same purpose long prior to the invention of either the Brewster wagon or Tilton's springs.

The earliest patent in the record showing a rigid gear mounted on cross springs having their heavy ends "*attached to the under side of the body at opposite sides*, then crossing each other and connected to the side-bar on opposite sides," is the Manton English patent, No. 4,092, July 18, 1817. (Rec. pp. 605–607). In order to show the striking similarity between this and the Timken patent in suit, figure 1 of the Manton patent and figure 3 of the Timken patent have been selected and placed side by side, with the reference letters only transposed from one to the other, the specifications of the Manton patent employed to describe the Timken figure 3, and the specification of the Timken patent employed to describe figure 1 of the Manton patent. (Timken patent, Rec. p. 558).

Timken's Specification with Manton's Drawing.

Fig. 3



"My invention relates to buggy and wagon springs, and it consists in the attachment of springs to the body at the sides, and crossing the bottom of the body, and connecting with the side bars on the opposite side of the body, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

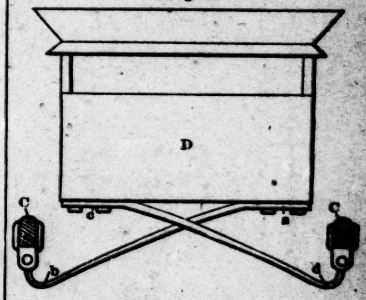
The hind axle A and head B are connected by side bars C, C, in the usual manner. D represents the body of the vehicle.

The body D is connected to the side bars C, C, by means of two springs, G, G, composed of one or more plates near each end. These springs are fastened to the underside of the body D at opposite sides. The springs then cross each other, and their ends are pivoted or hinged in clips I, I, fastened to the opposite side bars, as shown.

By this construction and ar-

Manton's Specification with Timken's Drawing.

Fig. 1



"My improvement in the application of springs to wheel carriages consists in placing the springs which are to support the body of the carriage in a transverse or cross-position, so that the length of the springs will be in a direction from side to side of the carriage, as represented by the drawings hereunto annexed, and that each spring shall be fixed to the body or suspended part of the carriage, on one side thereof by one end of the spring, which spring shall extend crossways beneath the body of the carriage, and be attached to the frame of the carriage on the opposite side to that side on which the other end of the same spring is fastened to the body of the carriage. This is shown in figure 1, which is a view of a part of a gig body, to show the application of the springs. A is the axletree (not shown), B, B, blocks fixed on the axletree to support the shafts (not shown), which, with

rangement of springs, I secure length of spring and elasticity of motion, and at the same time hanging the body low.

What I claim as new and desire to secure by letters patent is—

"In combination with the side bars C, C, and body D the springs G G, attached to the underside of the body of opposite sides, then crossing each other, and connected to the side bars on opposite sides, substantially as herein set forth."

their cross-rails C, C, form a frame. Upon this frame the body D is placed; a, b, is one of the springs, and c, d, the other; both springs are bolted or otherwise firmly fastened to the unside of the body D at their thick ends a, and c, the other ends b, and d, of the springs are received in shackles, loops or links, which are suspended from the shafts or frame, and allow the ends b, and d, of the springs some play. The same figure also shows clearly how the springs cross each other, but a sufficient interval must be left between the two springs that they will not touch or rub against each other where they cross. The figure is taken at the hind part of the gig, and similar springs may be applied at the fore part. The springs are suspended by shackles, loops or braces, in order that the ends of the springs may expand and contract—that is, advance to and recede from each other when the body rises and falls by jolts and irregular motions. * * * *

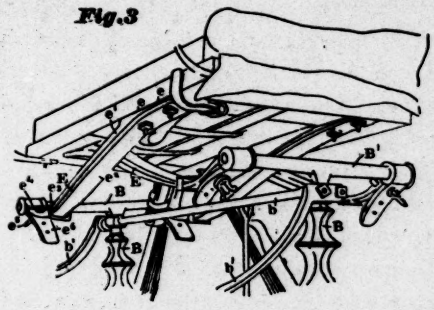
If there is any better evidence that the two devices are identical than that the description of either one may without change be substituted for the other, it has not yet been discovered.

The only difference noticeable in these two specifications is that the Manton specification is more full, clear and exact, and covers a much larger field than does the specification of Timken. This specification of Manton lays the foundation for a generic claim, while Timken's only suggests a specific claim, like the one one he has made.

In view of the above, it is fortunate for Mr. Timken that the Manton patent is not an existing American patent, earlier in date than his alleged invention.

The earliest anticipating device, or structure, is what is known as George Washington's coach. There are three photographs showing different views of the coach after page 600 of the record.

Fig. 3



The above cut of figure 3 and the relation to this coach is found Rec. p. 486. By the stipulation it is agreed that the coach from which the photographs were taken was known and publicly used in the United States long prior to the year 1870, and the photographs 1, 2, and 3, were taken from said coach while it was on exhibition as an old relic at the Centennial Exhibition at Columbus, Ohio, during the month of September, 1888. It is agreed that the coach in its present condition was at the Centennial Exhibition at Philadelphia, in the summer and fall of 1876, and that Henry Timken visited the Exposition during the time it was there; that the coach, as a whole, as shown by the photographs, was sold to one Richardson, a relic collector of New York City, some time between the death of President Washington and 1870, as a coach that George Washington owned and used in his lifetime; that the coach was exhibited as a relic at Wood's Museum in Philadelphia in 1855; that the coach of George Washington is referred to in the June, 1855, number of The Coach Makers Journal, published by C. W. Saladee at Cincinnati, O.

It is agreed that the following is a correct description of the several views, and of the parts as they existed in the said vehicle at the time the views were taken, and as the same existed prior to 1870. Figure 1 is a side elevation of the complete coach; figure 2 a photographic view in front elevation of the driver's seat and upper

part of the floor; figure 3 a view taken at an angle to the position shown in figure 2, shows the parts in perspective. A, represents the driver's seat, which is at least four feet from the top of the front axle by actual measurement. B B are two iron columns or standards secured upon and rising above the foot box. The foot box rests upon cross and latteral pieces, which pieces rest upon the fifth wheel, said foot box being secured to the brace or rest which carries the rigid perch extending under the body, the body itself being supported by two straps in front and two straps in the rear, one of each of these straps being connected with the iron brace connected to the body, and the other and upper end of said strap being connected to the upper end of the perpendicular spring, whose lower end is connected to the projection from the fifth wheel and rests against the brace and rises from the forward portion of the vehicle. B^1, are cross heads or bars secured to the column B and arranged parallel to the seat sides and line of draft.

b, is a cross bar connecting columns B near the top, which prevents them being drawn towards each other by the weight of the seat on the straps, which straps are part of the compound coupling under tho seat, b^1 are curved braces connecting the foot rests and the columns B; E compound couplings which connect the driver's seat to the bars B^1. These couplings are each composed of two steel leaves, e^1, the lower one of which is slightly curved up at the end, and a long heavy leather strap e2. The lower one of these leaves is curved at the end to prevent it from cutting into the strap in its action, and have near their ends metal loop fastened to the steel part passing around the steel leaf and the leather strap, which also serves to hold the leather strap to the steel part, and which is sufficiently loose around the leather strap to allow the leather strap to move back and forth through the loop on the bottom of that part of the steel leaf when the coupling is in action, or the steel part to move on top of the leather strap.

This leather strap is a long heavy piece of leather attached to the seat at the same point where the steel parts of the coupling are attached and by the same means of attachment to the seat,

and the point where it passes through the metal loop; thence it passes from the end of the steel part of the coupling a distance of at least one-eighth of the entire length of the steel part of the coupling, and connects with the cross head or bar B^1, by passing around its end, forming a loop. These loops are formed by the strap passing around the ends of the bars and doubling back on themselves, and the leather strap, after passing around the bar and doubling back on itself, is confined or held together by bolts, e4, situated between the ends of the steel part and the bar, B^1, which bolts have thumb nuts, e5, and metal washers, between the heads of the bolts, thumb nuts, and the leather strap, which washers prevent the heads and thumb nuts from cutting the leather. The ends of this leather strap, e2, which lap around the bar B^1, are provided with a series of holes at e6, which holes are adapted to receive the bolts, through two of which holes the bolts, e4, pass. These leather straps have these holes, thumb nuts and bolts, that they can always be kept tight, to prevent as much as possible the side, end and upward pitching of the seat.

Judge Sage, in his decision on Page 490, says that this coach and the inventions shown in complainant's patents are surprisingly alike in appearance, and a glance at complainant's patents, especially the Timken patent, or the Timken springs as made, ought to indicate to anyone familiar with the state of the art twenty years ago, that there could be no invention in producing the alleged inventions set forth in either one of complainant's patents, but he finds that the last clause in the stipulation is the key to the radical differences between the two, and that is that the lower leaf is a leather strap instead of a steel leaf, and that the coupling of this leaf to the side bars of the seat frame would allow the seat to pitch and adopts the views of complainant's counsel that this is not a spring but a thoroughbrace. Now, a thoroughbrace is a leather strap supporting the body of a carriage and serving the purpose of a spring, like the straps supporting the carriage body in figure 1 of the Washington coach, but these thoroughbraces were also connected to springs and coupled to them in many different ways, and a close inspection of figure 1 will show

the vertical springs, to which the thoroughbrace supoorting the front end of the carriage is connected, is substantially the same in shape as the Timken spring, and the thoroughbrace is coupled to it by a shackle, and the spring coupling, E, is in no sense a thoroughbrace. But if it were found that the leather strap below a pair of double sweep sectional springs for coupling them to side bars would allow the seat to pitch, it would have required no invention, after the Wood patent, to have applied what is known, and has been since long before the date of the Wood patent, as the clip, and since the date of the Wood patent as the Brewster shackle, such as is used on the Timken spring, the Saladee spring, the Ruple, Bloom, Kierolf, and all the other spring exhibits introduced in this case. The Manton E. P. has its cross springs coupled to the side bars of the gear frame, and the inventor says in his specification that the thin ends, b and d, of his springs are received in shackles, loops or links, which are suspended from the shafts or frame. The patent shows the springs coupled by loops, but the inventor treats loops, links or shackles as mechanicle equivalents.

The Groot patent, No. 92, 525, of July 13, 1869, a cut of which is shown at page 607 of the record, shows double sweep springs secured transversely of the buggy body and coupled to the gear. These springs have scroll ends and are coupled on the top by rigid shackles. This is the patent referred to by His Honor, Judge Wallace, in Brewster vs. Shuler, 37 Fed. Rep., 785, as anticipating the Wood patent. In that case it was proven that these scroll end springs had been upon a buggy prior to the invention of Wood. The Wood original patent was dated May 27, 1873.

The English patent to Catterson, November 15, 1853, shows sectional cross springs for supporting carriage bodies, precisely the same as the invention described in complainant's patent, and the sectional springs shown in figure 3 have their fixed ends passing each other at their centers and united together, and to the vehicle by a coupling clip. The inventor explains what he means by a double sweep, "I mean a spring fixed at or near its center

and having two elastic arms" and says of this spring, C, that it may be constructed in various different manners, thus, it may be made of two single springs fixed to the axle, as shown separately in plan in figure 3. Now, referring to figure 3, which is a plan view of figure 1, it will be seen that the two short springs pass each other and are held together and to the axle by a clip or coupling, much like the crab or coupling used to connect defendants springs to the cross bar. It will be noticed, too, that the ends of the springs are coupled together by a bolt or rigid coupling.

It would be profitless to go into a detailed examination of all the different styles of cross springs introduced in evidence and shown in the record. It is sufficient to say that they represent springs of all kinds and shapes, placed longitudinally and transversely of the vehicle, having bolts or swivel joints journalling the springs together at the crossing points, flexible couplings of rubber, like the Kenan patent of 1870, binding the cross springs together at the crossing points, single sweep springs, double sweep springs, springs of wood and of steel, cross springs of practically rigid metal with elastic cushions, interposed between the bars and body, as shown in the Vernier patent of 1868 (Rec. p. 597), and similar spring bars with semi-elliptic and double sweep springs for cushioning them, as shown in the several Hight patents, notably of 1874 and 1875. (Rec. pp. 587 and 591).

PRIOR USE.

That the springs manufactured by Priest for Rolf and others at Detroit, Michigan, completely anticipated the Timken invention, is clear upon an examination of the springs introduced in evidence by not only the defendants, but by the complainant himself.

The first of these is what is known as the Meisner spring. There is no dispute in the record but that Priest manufactured a buggy for Dr. Meisner in 1872 or 1873, having the body coupled to side bars by double sweep sectional cross springs, which springs, were rigidly secured to the buggy bottom upon opposite sides by bolts passing through their thick ends, then curved downwardly

from the body and up again in the direction of the side bars, to which they were coupled by what is known as the swinging shackle or link. The only dispute about the matter at all is as to the manner of fastening the heavy portions of the springs to the cross bars or sills of the body frame, and these two modes are represented by defendants' exhibit "Priest springs No. 1" (Rec. p. 122), and the complainant's exhibits "Sketches Complainant's Priest springs 1 and 5, figure 1 (Rec. p. 556), and the vehicle gear "Complainant's Priest Exhibit 1," introduced by complainant and testified to by Henry Timken, page 405 of the record.

Now, it is practically admitted by complainant that defendants' exhibit "Priest spring No. 1" anticipates all there is of either the Tilton or Timken invention, and it is attempted to be explained by the introduction of the gear "Complainunt's Priest spring No. 1," that neither the Meisner buggy nor the Thomas Venn buggy had springs like the Meisner spring, introduced by Priest, but on the contrary, the heavy portions of the springs were connected by a single bolt upon opposite sides of the center and had a thin end extending from that point in the direction of the side sills of the buggy body. In other words, that there was some spring action between the point of attachment nearest the center of the body and the point of attachment nearest the side sill. Even admitting this to be true, then it would only be necessary to put two bolts in the complainant's Priest No. 1 spring near the center, instead of one, to make the connection to the cross sill of the body rigid, and we have a Timken spring precisely, if the contention of complainant that any double sweep spring secured upon one side of the longitudinal center of the body, crossing the center and attaching to the cross bar upon the opposite side, is within the claims of the Timken patent.

And if this contention be right, that the bolts connecting the central portion of the springs to the cross bar are fulcrums, allowing spring action upon both sides, then this Priest spring which was used upon Dr. Meisner's buggy in 1872 and 1873 completely anticipates everything shown in the Tilton &

Stivers patent, swinging shackles and all, for the Tilton & Stivers patent, both the original and re-issue, show the light ends of the springs secured to the side bars by links or swinging shackles.

His Honor, Judge Sage, was also of the opinion that these Priest springs anticipated complainant's alleged invention, as shown in the three patents in suit, and states, in his opinion, on page 489, that he entirely rejected the testimony of the witness Priest, as altogether unreliable. In this His Honor erred, as a fair reading of the testimony will show. The testimoney of Priest is corroborated fully by the witnesses Bushway, Rolf and Rand, and supported by documentary evidence which renders it, beyond a reasonable doubt, true, and there was no attempt on the part of complainant to rebut the testimony of any one of these witnesses, although the names of the different parties to whom these Priest springs were sold had been given, their residences given, and many of them were still living when complainant took his so-called rebuttal testimony. The testimony of Priest as to this spring is found Rec. pp. 121 to 123.

But it is not necessary to rely solely upon this exhibit. Much stress has been placed upon the fact that this Meisner gear had the swinging shackle like the Tilton patent. To avoid all discussion on that point, we refer to the Priest springs No. 2. There were numbers of these spring made prior to any date of invention shown by complainant for the Tilton or Timken patent, notably what is known in the record as the Thomas Venn buggy, the Pontiff Guinn buggy, both of which are still in existence, were offered in evidence in the suit against The Columbus Buggy Company, and are now, or were at the time of taking the testimony, in the possession of complainant, Henry Timken (Timken's testimony, p. 435). If these vehicles do not anticipate the Timken patent, it was easy for complainant to introduce them on rebuttal and show the fact. That they were not introdnced is strong presumptive evidence that the truth would not benefit complainant's case.

What is known in the record as the Prescott buggy, the first one shipped to Lady Prescott, was made in September or October,

1874, as proven clearly by the testimony of Priest, Rolf and Rand, and the documentary evidence consisting of books, letters, bills of lading, bills for work, &c., produced by Rolf and introduced in evidence.

Priest testifies (Rec. pp. 128–129) that he got an order from Rolf to build what is known as the Brewster buggy, that when he had the buggy nearly finished one of Brewster's agents came into his shop and demanded a royalty of $20.00. Priest went to Rolf and told him he would not finish the buggy unless Rolf would pay the royalty; Rolf told Priest he had taken the money for the buggy and it had to be built. Priest then thought of the Dr. Meisner buggy, and concluded to use the springs he had used upon it, instead of the Brewster spring, substituting the Brewster shackle for the loose link which had been used upon the Meisner buggy.

Now this is undoubtedly the first Prescott buggy. Rolf testifies (Ans. to X-Q., 103, Rec. p. 295), that Prescott came into his place, ordered the buggy and paid him $225.00 down to make it, and gave him directions how to ship it. He testifies positively that this buggy was made in September or October, 1874 (Rec. p. 285), was painted prior to December 1st, 1874, by Shannessy & Nicholson, and produces the bill for the painting, which is introduced as "Defendants' Exhibit 1, Painting Bill." (Rec. p. 607). He produces his invoice book at the request of counsel for complainant, showing the goods on hand in his repository January 1st, 1875, and finds entered therein, not only the buggy afterward sold to Sir George Prescott, but also several other buggies with Priest springs. (Rec. p. 285, Ans. 10). He states (Rec. p. 252) that he went on a trip to Denver March 20th, 1875, and before going to Denver he got a rate on shipping the Prescott buggy to England. (Rec. p. 294, Q. 91). He produces bills of lading for this buggy shipped to England, which are printed after page 600 of the record, the first being dated March 25th, 1875, from the Erie & North Shore R. R. Line, showing the consignment of the buggy to Lady Prescott, Strand Park, Hernebay, Kent, England; and the other being a bill from the steamer C. F. French,

from New York, April 10th. He also produces original letters and the envelopes in which they were enclosed. (C. W. Prescott, letter of June 10, 1875, envelope of June 10, 1875, letter, and C. W. Prescott Lawrence letter), and testifies (Rec. p. 284), that the first letter was, as the marks will show, received at Detroit June 25, 1875, and received by carrier June 26, 1875, at Detroit; that that envelope covered a letter that was written at Isenhurst, Hawkhurst, England. The letter and envelope are printed at pages 607 and 608 of the record.

Now, it appears from this letter that C. W. Prescott must have ordered the buggy in the fall of 1874, and received it in England June 10, 1875, and in the same letter acknowledging its receipt, he orders another buggy for his brother Sir George Prescott. We have another letter, printed on the same page, from C. W. Prescott, but without date, notifying Rolf how to ship the buggy to Sir George Prescott, and informing him that he would send him check in a few weeks for $325.00, the price of the buggy.

Turning now to Rolf's invoice book, we find that he had a buggy of the same kind on hand January 1st, 1875, and a memorandum in the same book made at a later date, showing that the buggy was sold to Sir George Prescott August 13th, 1875.

This testimony of Priest and Rolf is also confirmed by the witness Rand, who packed and superintended the shipping of the buggy with the Priest springs to England. (Rand's testimony, Rec. p. 279). This witness also testifies to the making of the Thomas Venn buggy, the Dr. Drake buggy, and others that Priest had made for Rolf. He was Rolf's salesman and bookkeeper.

By turning again to Rolf's answer 10, page 285, we find that he has entered in his invoice book also a side bar cross spring buggy by Priest, "J. Priest's buggy sold October 23, 1875, to Dr. Drake." It seems from this book that it was the custom of Rolf, when he sold any of the buggies invoiced in his book under date of January 1, 1875, to make a memorandum under the head of the invoice (each vehicle being numbered separately) the date the vehicle was sold. Under cross-examination by complainant's

counsel (Rec. p. 289, A. 53) as to what was the number in the invoice book of the Drake buggy, states "No. 162," and in the next answer, being called upon to state what appears in writing opposite 162, answers, "Top, side bar, J. Priest, October 23, 1873, sold Dr. Drake." And to the next question, "State all the words that appear opposite No. 170," answers (Rec. p. 255), "Top buggy, Priest spring, side bar."

These are books of original entry and show, beyond question, that side bar vehicles having these Priest springs on were made sometime in 1874, and were on hand, as appears by the invoice book, in Rolf's repository on the 1st day of January, 1875, thus fully corroborating Priest's testimony which His Honor, Judge Sage, refused to consider.

The exhibits "Bushway Springs" were also made for Rolf as early as 1875. (Bushway's testimony Rec. p. 266). This witness also states in answer to Q. 12, that springs similar to those had been made, before he made any, by Mr. Joe Priest. This is another witness confirming Priest's testimony and, indeed, there is no attempt made by complainant's counsel to rebut or contradict a single one of these witnesses.

Bushway also testifies from the books he kept, and his memory being refreshed by these, is sure he made the springs about the time testified to. (1875, X. 52, p. 271). This witness also states that he had made similar springs for other parties in 1875.

RUPLE SPRINGS.

There can be no question but that the spring which Ruple supposed he invented in the latter part of 1875 is the Timken spring. Timken, when on the stand, admits this. (Rec. p. 432, X-Q. 142).

Defendants have introduced in evidence two sets of springs of the Ruple pattern, either one of which springs was made prior to any alleged invention of Henry Timken, and, of course, prior to Saladee, whose patent is four years later, and have proven that many others of the same pattern were made and sold prior to any alleged invention of Henry Timken. These springs are intro-

duced in evidence as "Defendants' Exhibit Brigel Wagon Springs," and "Kunkle Brothers' Wagon Springs." Defendants have also introduced in evidence a certified copy of the rejected application for a patent made by Ruple, in the United States Patent Office, filed shortly after the allowance of the Timken patent. The specification and drawing of this is printed on page 601 of the record and shows clearly the invention claimed by complainant in this suit.

1. As to the Brigel wagon springs, which were made by William Blume of Scranton, Pa., from instructions given him by Ruple in the latter part 1875. This wagon has been traced from the day it left Mr. Blume's factory up to the day Mr. Blume's testimony was taken in this case and was found in use by Mr. Brigel when the testimony was being taken. The exhibit "Brigel Wagon Springs" was taken off of the wagon by the witness Bullard and a set of Timken springs substituted in place of them. As to these springs, William Blume testifies (Rec. pp. 333 and 334) that Ruple left his employ in the fall of 1875, and went to Hazleton, Pa., and that before he went he had explained to Blume his new style of spring, and from such explanation he made fifteen or sixteen buggies, and was making buggies of this character when Mr. Timken's agent called upon him, in 1878, and offered to sell him the Timken spring for less than he could make them. Now as to this exhibit "Brigel Wagon Springs," Blume testifies (Rec. A. 3, p. 340) that he traded a buggy to A. L. Foote, of Scranton, Pa., on the 12th day of April, 1877, and sold several buggies of the same kind to other parties, and in the succeeding answer that he had sold buggies to different parties about the same time. The Brigel wagons springs being shown to him, he identified them as similar to springs he had seen made by Ruple in 1876. (Rec. p. 341).

Foote testifies that he bought a buggy from Blume in the fall of 1876, with such springs on, and a second buggy (the Brigel buggy) in May, 1877, that he sold the Brigel buggy to Bullard in 1879 or 1880 (Rec. p. 353), and that the wagon was not changed from the time he purchased it until he sold it to Bullard.

Bullard testified he got the buggy from Foote, used it about a year, and then sold it to Brigel, took the springs off the Brigel buggy the day before he testified and replaced them by Timken springs. (Rec. p. 359). He testifies also that he knew of Ruple's springs in 1875.

Brigel testifies that he bought the buggy from Bullard in May, 1881, and that the springs were in the same condition when they were taken off as they were when he bought it. (Rec. 310 and 311).

There is, therefore, no doubt but that these springs are the identical springs made by Blume in the latter part of 1876, and sold to Foote the early part of 1877, and had been in constant use from that time up to the day the testimony was taken, the middle of June, 1887.

Complainant has not been able to produce a single spring, or a vehicle having these springs on, which was made and in use prior to the date of his patent, or at least prior to the summer of 1877.

KUNKLE BROTHERS' WAGON SPRINGS.

These springs were taken off of a wagon used by Kunkle Brothers, livery stable men, at Hazleton, Pa., from the time they were manufactured and sold to said Kunkle Brothers in 1876, or the spring of 1877. They are fully identified by the witness Kunkle, and the making of these springs testified to by Ruple, Philip Koenig, and Kunkle. The date at which they were made is fixed definitely by the books of account of Casper Wiegand, from whom Breitenbach & Lindeman rented the shop in which these springs were made. It has been heretofore shown that Ruple left Scranton, Pa., and went to Hazleton in the fall of 1875, or winter of 1875–6. Koenig testifies that the springs were made, and had knowlege of them while Lindeman's shop was in Mr. Wiegand's building, just across the way from where the testimony was taken. It appears from the testimony of Wiegand that Lindeman occupied the shop from October 1, 1874, to July, 1877, when they moved into their new shop. (Wiegand's testimony,

A. 17, p. 371). It appears also from the testimony of Henry Bonz that he built a shop for Breitenbach & Lindeman, which he commenced June, 1877, and finished July 29, 1877 (Rec p. 393, A. 5), that he entered into partnership with Breitenbach & Lindeman in October, 1877, the partnership was dissolved December 5, 1877, and he produces a printing bill advertising the dissolution of partnership. (Bonz's testimony, Rec. p. 394, A. 5; Exhibit "Printing Bill," p. 608).

Philip Koenig testifies that Breitenbach & Lindeman occupied Mr. Wiegand's building until Mr. Bonz built their new shop for them (p. 376), and that while he was in Wiegand's shop Ruple made side bar buggies having cross springs substantially like the Timken springs, the only difference being in the mode of fastening the springs to the bar (Rec. p. 377), that he made four of these springs, mentions the names of three of the parties for whom they were made, one of them being Kunkle Brothers.

Wilson Kunkle, one of the Kunkle brothers, testifies (Rec. p. 384) that he became acquainted with Ruple at Hazleton during 1876; knows it because he had made arrangements to go to the Centennial Exposition, held at Philadelphia, with him. He states A. 9) that the first Timken spring he ever saw was made by D. P. Ruple; that he saw it on a buggy in 1877, but saw the spring upon the block or cross bar before that time; but certainly saw it on the wagon as early as April, 1877. (Answers 9 to 13, p. 384). He gives also the names of parties, same as Koenig gave, who had purchased buggies of this kind; states that Kunkle Brothers bought one of these wagons and had it with the Kunkle Brothers springs on up to the time they were taken off to be introduced in evidence in this case, and that the wagon was purchased some time between the 1st of April and the 4th of July, 1877. He produces his books and testifies from memoranda that he has, fixing this date positively. He is very positive, as appears from cross examination, that the springs were purchased at the time named, in the spring or summer of 1877.

The only exhibit offered in evidence tending to show one of the first springs made by Timken is complainant's exhibit "Gage

Buggy." Durie testifies (Rec. p. 441, Q. 11) that the order for this buggy was taken May 22, 1877, but did not state when it was finished with the springs on, evidently not before the summer of 1877. The earliest buggy claimed to have been made, which was an experimental buggy, was what was known as the Sellers buggy. Timken cannot fix the date he sold the Sellers buggy; has a record of it, but could not find his book. He sold Mr. Sellers other buggies, quite a number of them, at different times (Rec. pp. 417 and 418, X-Q. 32 to 34). He thinks he sold it to Sellers in the spring of 1877, before Durie entered his employ. It is clearly proven that Durie entered his employ November, 1876.

Durie says Jones was working on Timken springs when he went to Timken (Rec. p. 346, X-Q. 4 to 7), which was November, 1876. (Rec. p. 440, A. 2).

Timken testifies that Jones never made but one set of springs and these were the springs that were on the Sellers buggy.

Complainant's witness, Harrison, states that the experimental job, or Sellers springs, were made about three months before the work on the Lupe job. (Rec. p. 455). Now we have fixed the date the order for the Lupe job was taken as May, 1877, and three months prior to that time, or in the late winter, as Harrison puts it, the experimental buggy which was said to have been sold to Sellers was ironed by Jones.

Timken's first effort at an improved spring was the longitudinal spring he had at the Fair in St. Louis. These springs were upon a road wagon. He had road wagons at the Fair in 1875, 1876 and 1877. (Rec. pp. 414 to 418, X-Q. 9 to 34.)

It appears that his longitudinal spring proved a failure, and it was after the Fair that he changed the springs on the experimental buggy and had cross springs put upon it, and the first set of cross springs were put on by Jones about three months before the Lupe job was made, which was in the spring of 1877.

Now this testimony is clearly confirmed by the bills introduced in evidence from the Spring Perch Company, of Bridgeport, and the first one of these bills is dated September, 1876,

and was most likely the first longitudinal spring which went on the discarded road wagon. The next bill is February 6, 1877, and here, for the first time, we have the Brewster shackles used with the Timken springs. There are six of these, just enough for the vehicles made in the spring and summer of 1877, as testified to by Durie. (Rec. p. 412, A. 92; and complainant's exhibit "Spring Perch Company Bill" February 6, 1877, Rec. p. 459). Therefore, the earliest possible date that Timken could fix for his invention must be the spring of 1877, and it is more than probable that he did not make his invention uutil after the Fair of 1877, and just before filing his application for his patent. His patent springs were in the Fair the season after his invention. He took a silver medal the first year they were in the Fair, but, although Mr. Timken was called upon to produce the silver medal, or the record that he had it in the Fair in 1877, he failed to do it.

The prior art, as shown by the patents and exhibits, shows that the alleged invention by Timken was old long prior to any conception of the invention by him (if invention it may be called) and the evidence in proof of the springs made by Priest, Bushway, Ruple and Blume is clear beyond a reasonable doubt.

The burden of proof is upon defendant to show that the invention was old at the time of complainant's patent. Having shown this, the burden of proof is then upon complainant to show that he made his invention prior to the date of his application for a patent, and long enough prior to the date of his application to ante-date any of the devices, patents or applications proven to have been made, patented or published prior to the date the application was filed in the Patent Office. That these exhibits contain the supposed invention of Timken is evident from looking at them, but Timken himself has stated that they or some of them do contain his invention. He is asked (Rec. p. 424, X-Q. 101) to examine defendants' exhibit "Matlock Springs," and state whether they contain his invention, and he answered unequivocally that they do contain his invention. He also states (Rec. p. 432, X-Q. 142) that the Kierolf spring and the Kunkle Brothers' springs are also somewhat or nearly the same as his

springs. It has been shown before that both the Kierolf and the Kunkle Brothers' springs were invented and in use long prior to any date that can be shown for the use of any spring side bar vehicles made by Mr. Timken, having sectional cross springs like those shown in his patent.

It will be seen from the record that there was not one word of testimony taken by complainant, either on his *prima facie* case or in rebuttal in relation to the Tilton & Stivers re-issue or the Saladee patent, and at the hearing below it was assumed that these patents would not be relied upon. Judge Sage, in the opinion (p. 489) states in reply to defendants claim that they were surprised at complainant pressing for a decree on these patents at the hearing, when they had taken no testimony whatever in relation to them, that defendants were bound to anticipate and be prepared for every point that could be made *upon the evidence.* That may be true, but as there was no evidence except the mere introduction of the patents in evidence, there was nothing to be prepared for. Indeed, defendants might have rested without taking any evidence, as there is not one word of testimony in the record that defendants' structure infringes upon either of the patents in the suit. The bill alleges infringement, the answer, which is sworn to, denies infringement, the burden of proof on the question of infringement is on complainant, and as they took no evidence, the bill should have been dismissed, not only as to the Tilton & Stivers re-issue and the Saladee patents, but also as to the Timken patent itself, without even setting up the prior state of the art. The testimony of complainant's witnesses in rebuttal was properly objected to on the record because not properly in rebuttal of anything produced by defendants, and a motion made to strike out the evidence for that reason. This motion was overruled. (Rec. p. 457). It is claimed that the Court erred in overruling this motion.

The only question asked about the Tilton & Stivers re-issue were asked in cross-examination of Timken by defendants' counsel. On page 433 of the record, he is asked:

X-Q. 150. As you never made or had any of the Tilton springs made for you, why did you purchase the patent?

A. Messrs. Tilton & Stivers, who were the owners of the patent at that time, threatened me with suit, and I thought it was cheaper to buy it than to go into a patent suit.

X-Q. 151. Did you negotiate with Tilton & Stivers for the patent before or after the re-issue was applied for or obtained?

A. After the re-issue was obtained.

X-Q. 152. Were you threatened with suit by Tilton & Stivers before the re-issue was obtained or afterwards?

A. Afterwards.

X-Q. 153. Then you didn't think that the Timken spring infringed upon the Tilton patent, but only purchased it because it was cheaper than defending a law suit? Is that right?

A. That is right.

Now it appears from the testimony of this expert that if the Timken spring did not contain the invention claimed in the re-issued patent, the defendants' spring (which is alleged to be the same thing) could not be considered an infringement. Neither the Timken, the defendants' spring, nor the Saladee spring could be held to be an infringement of the original patent and, as it was re-issued for no other purpose than to expand its claims, and the re-issue not applied for for more than six years after the original patent, and for many years after springs like the Timken, as illustrated in the Timken patent, and the exhibit Priest, Bushway, Brigel and Kunkle Brothers' springs were in common use, the re-issue is utterly void.

Why should defendants be prepared to meet any claim that the Saladee patent was infringed when, as already shown, the Stickles springs were invented and in use before the application for the Saladee patent, and the springs made by defendants being made under and in accordance with the Stickle's patent. Aside from this, a glance at the Kierolf, the Jackson Wright, the Matlock, the Kunkle Brothers', and the Brigal springs shows that everything that is shown, described or claimed in the Saladee patent, were all in public and common use more than two years prior to the application of Saladee for his patent, and there is no

attempt in the record to put the date of the Saladee invention back of the date of his patent.

Defendants were justified, therefore, in disregarding the Tilton and Saladee patents. It has been the unwritten law in all patent suits that the defendant is only called upon to meet complainant's case; for instance, if a suit is brought upon a patent with numerous claims and complainant limits his testimony to only one or two of them, the defendant is not called upon or expected to meet any case that may be made at the hearing upon any claims that have not been testified about or have been disregarded by the complainant in taking his *prima facie* case, and not referred to by any of complainant's witnesses in rebuttal.

But there is another reason why defendants were justified in disregarding the Tilton & Stivers re-issue and the Saladee patent. The Saladee patent because it is apparent to anyone that the testimony fixes the date of defendants' invention prior to Saladee, and either one of the exhibits, Kierolf springs, Matlock springs, Wright springs, or Ruple springs, or the Cooper patent were known publicly, and vehicles having the identical combination of springs were in public and common use more than two years before Saladee's application for a patent. And as to the Tilton & Stivers re-issue, it is entirely clear, from the numerous decisions of this Court, beginning with Miller vs. Bridgeport Brass Company, in 1880, and extending through every year down to the present time, that Tilton & Stivers' re-issue is utterly void. An extended citation of the various decisions of this Court upon the law of re-issues would be needless. A single case will be referred to because it is exactly parallel with the case at bar.

The case of Huber et al. vs. The Nelson Mfg. Company, 148 U. S., 270, affirming the decision of Judge Thayer, in 38 Fed. Rep., 830, is this case exactly, with this exception: that the inventor, Boyle, in that case was an original inventor, and the invention for which he obtained a re-issue was not anticipated by anything known to the art prior to the date of his original patant, and his invention as disclosed, but not claimed in his original patent, proved to be a very valuable invention, while the inven-

tion disclosed in the Tilton & Stivers patent is, by the testimony of complainant himself, proved to be utterly worthless. But Boyle, in his original patent, which was for a sanitary closet, included as one element of his claim "the flushing chamber F." This was made an essential element of his claim, as was the pivot bolt, D, of the Tilton & Stivers original patent. The Court states, in its opinion, that Boyle, in his affidavit accompanying his application for re-issue, stated that he believed his patent "to be inoperative to fully protect his invention, intended to be covered by it, for the following reasons, viz., that the principal claims in said patent are defective or insufficient, in that they are or appear to be, limited to combinations embodying "the flushing chamber F" as an essential element, whereas that chamber is not essential to his invention in its generic features."

That as stated in the specification of the original patent, his invention introduced "a new principle of operating double or siphon water-closets, * * * and that through inadvertence or mistake of judgement, his claims were drawn with less breadth than his specification, and do not, as they should, cover broadly the application of such principle."

He alleges, further, that he did not discover his mistake until he saw in the official Patent Office Gazette the report of a patent issued to one Hanson, showing Boyle's said invention in a form almost identical with one of said constructions invented by Boyle; that, as soon as he discovered it, he applied for his re-issue, demanded an interference with Hanson, alleged in his application for re-issue that no adverse interests had arisen between the date of his original and the application for the re-issued patent; that no one had been infringing upon his patent or attempted to imitate it, or evade the same except Hanson.

The view taken by Judge Thayer, that the sole purpose of Boyle in asking for the re-issue was to eliminate the "flushing chamber" as a constituent element of the combination covered by certain claims of the original Boyle patent, and to obtain a patent for a flushing apparatus like Boyle's, less the flushing chamber specified in his claim 1.

"The effect of this was to expand the claims of the original patent, because they had been limited by including the flushing chamber as an element of the combination."

This is exactly what Tilton & Stivers did. Their patent was re-issued for the sole purpose of eliminating the bolt coupling the two springs together at their central point, and forming an articulated joint.

The Court further say, near the end of the opinion: "In the specification of the original patent, the flushing chamber had been made an essential element in each of the six claims. * * It was not until Boyle obtained knowledge of Hanson's patent that he conceived the idea of claiming such a constructian as had been patented to Hanson. Then, and not until then, he announcd the idea that it was of value to do away with the flushing chamber, although the specification of his original patent in its text, and drawings, and claims, emphasized the importance of the flushing chamber as an element in every one of his combinations."

Here we have exactly the same case. Tilton & Stivers never discovered that they could omit the coupling until they saw the Timken patent with the coupling bolt omitted. The patent was re-issued with expanded claims to cover in the Timken structure and all the other structures that were in public and common use between the date of the original Tilton patent, 1874, until the date of the application for re-issue in November, 1880.

The case against the re-issued patent in suit here is much stronger than that before Judge Thayer, affirmed by this Court, in the case above cited. In that case it was proven that Boyle was the inventor of all that was shown in the re-issued patent, and the application for the re-issued patent, No. 10,826, which was granted April 19, 1887, was filed only one year after the date of the original patent, while in this case the application for the re-issue was filed six years after the date of the original patent, and it is not proven that Tilton invented anything not shown in his original patent, in which there is no suggestion of any vehicle gear coupling, except the specified thing shown, with the articulated joint at the center.

The above case cites numerous authorities in support of the decision, and refers particularly to the case of Topliff vs. Topliff, in which His Honor, Mr. Justice Brown, in the very clear opinion rendered by him, reviews all the previous decisions relating to re-issued patents.

To the same effect are the following cases:

Wollensak vs. Sargeat, 14 Sup. Ct. Rep., 291.

Corbin Cabinet Lock Co. vs. Eagle Lock Co., 14 Sup. Ct. Rep., 29.

THIRD POINT.

DEFENDANTS DO NOT INFRINGE.

In view of the state of the art, defendants do not infringe upon either of the patents sued upon, except it be the new fifth claim of the Tilton & Stivers re-issued patent, unless it be that the fifth claim is a valid claim and capable of such construction as to include springs that may be secured at their thick ends to any part of the body bottom and extending from the point of attachment to the bottom of the side bar, and secured by any well known means of attachment at their thin ends to the side bars, and the single claim of the Saladee patent which, if broadly construed, would cover any vehicle having sectional cross springs coupling the body and the gear.

It is not believed that either the fifth claim of the re-issued patent, or the single claim of the Saladee patent can be maintained, or construed broad enough to include defendants' device.

If the fifth claim of the Tilton & Stivers re-issue is capable of any construction broad enough to include the Timken, Saladee and defendants devices, then it certainly anticipates both Timken and Saladee, and if the claim of the Timken patent can be construed broad enough to include the Saladee and defendants' device, then the Saladee patent is void for want of inventton.

The Tilton & Stivers re-issue is void, because the fifth claim covers the Timken structure. There can be no doubt about this. It was intended to cover sectional cross springs without the articulated joint in the center, and it does cover such springs, if the

word "preferable," introduced for the first time in the re-issue, is not an expansion of the invention described in the original patent. The public has a right to assert that the patent has been unreasonably expanded, and, therefore, void, but the complainant who has brought the suit upon this patent, cannot make such claim. He is bound by the allegations of his bill of complaint.

It is perfectly obvious that if the bolt connecting the cross springs at their crossing point in the Tilton & Stivers re-issue, were omitted, or should accidentally fall out in use, that we have the Timken springs, pure and simple (Sees A. 6, p, 226), and if the Tilton & Stivers re-issue is not limited to a swinging shackle instead of a rigid shackle, we have the Timken combination exactly. As complainant has sued defendants, whose springs are coupled to the side bar by a rigid shackle, he impliedly asserts that the Timken patent is not limited to a rigid or swinging shackle and under the claims made by the complainant, the reissed patent of Tilton & Stivers completely anticipates the Timken patent, which seems to be the main reliance of complainant in this suit.

The third and fourth claim of the Tilton & Stivers re-issue, if the re-issue is not invalid by the insertion of new matter in the specification (as Judge Sage holds it is not) still must be the same as original claims 3 and 4, and must be construed to mean springs hinged or articulated, or connected by a hinged joint at their crossing point and, so limited, exclude defendants' structure, in which the springs are rigidly held at the heavy ends in a cast-iron crab or coupling at the center of the buggy bottom, which prevents any articulation or play.

In view of the state of the art as shown by the exhibits, the Kierolf springs, Matlock springs, Wright springs, all certainly made before the date of the Timken patent, and more than two years prior to the application of the Saladee patent, and the fact that the defendants' springs are made in strict accordance with the Stickles patent, and it is proven that Stickles made his invention and had his springs in use prior to the application for the Saladee patent, and the further fact that no attempt was made by

complainant to rebut this testimony or contradict a single witness produced in relation to the springs made by either Ruple, Blume, Kierolf, Matlock, or Wright, the Saladee patent in suit may be dismissed from further consideration. But if there is any doubt as to its being anticipated, the Cooper patent, No. 200,485 (Rec. p. 589) testified to by the expert James W. See (p. 282), and the rejected application of D. P. Ruple, proven to have been filed in the Patent Office early in 1878, showing springs like the Blume and Ruple springs clearly anticipate the invention.

The Timken patent seems to be the whole reliance of complainant, and from what has been said already, it is clear what Mr. Timken supposed he invented at the time he filed his application for the patent. The specification of the Timken patent is very short, very concise, and leaves no doubt, upon an examination of it, as to what Timken supposed he had invented, and the defects in prior structures which he supposed his invention overcame. He states that his specification is a "full, clear and exact description of the construction and operation of the same," reference being had to the accompanying drawings, making them a part of the specification, and to the letters and figures in reference marked thereon, and states that his invention "consists in the attachment of springs to the bottom of the body at the sides, and crossing the bottom of the body, and connecting with the side bar on the opposite side of the body."

"The annexed drawings, to which reference is made, fully illustrate my invention."

"The body, D, is connected to the side bars, C, by means of two springs, G, G, composed of one or more plates near each other. These springs are fastened to the under side of the body, D, at opposite sides, the springs then crossing each other, and their ends are pivoted or hinged to clips, I, I, fastened to the opposite side bar, as shown."

Now he states in the next paragraph just what he attains by his invention.

"By this construction and arrangement of the springs, I secure length of springs and elasticity of motion, and at the same time hanging the body low."

And that is all there is to instruct a mechanic how to practice the invention, and a clear statement of all the objects attained by the invention and the claim, is:

"In combination with the side bars, C, C, a body, D, the springs, G, G, attached to the under side of the body at opposite sides, then crossing each other, and connected to the side bars on opposite sides, substantially as herein set forth."

This is a very limited claim, as it necessarily should be to pass the gauntlet of the Patent Office. Defendants' springs are not attached to the under side of the body at opposite sides, they do not cross each other, as contemplated in the Timken patent, and are not connected to the side bars on the opposite side from where they are attached to the body. Indeed, it has been testified to, and is not denied or attempted to be rebutted by complainant, that there is no spring action in defendants' springs upon the opposite side of the body to which the springs are attached.

Complainant has fixed the boundary of his invention by his patent, if his invention is or was broader than his claim, then it was his duty to surrender his patent, and by re-issue obtain a patent commensurate with his supposed invention. He cannot ask the Court to re-issue his patent. That is not the function of the Court. He must stand or fall by his claim, as made. The claim is not only a very specific claim, but it is made more specific by the reference letters limiting it to a specific kind of gear, to-wit, a rigid gear, the specific character of spring shown (with the possible expansion by reason of the words in the specification not limiting it to a single plate) the specific mode and position of attaching the springs, and the particular sweep of the springs, as shown.

The patent is not, as its title implies, for a "carriage spring." The title of the patent is merely arbitrary: It is simply given to determine to what division of the Patent Office the application should be sent, and the Patent Office, by its rules, reserves the right to order a change in the title. The patent is for what the claim covers, and the claim in the Timken patent is for a side bar vehicle of a particular kind, to-wit, having cross springs coupling

the body and running gear, the fixed side bars being part of the running gear.

If is proven that defendants never made a running gear, but simply fitted sectional springs upon a bar, the light ends of the springs having shackles. and that nearly all the springs that they had fitted upon these bars for sale to the trade, were purchased from spring manutacturers whom Timken had licensed under his patent.

There is little difference of opinion between defendants' expert Jas. W. See and Henry Timken himself, as to the invention set forth in the Timken patent, as testified to by Mr. Timken from page 423 to page 426 of the record down to X-Q. 107. Up to this time the complainant, Mr. Timken, seemed to be entirely competent to explain the invention covered by his patent. After the answer to that question the further taking of testimony was adjourned to the following day. After consultation with his attorney during the adjournment, he was utturly unable to say what his invention was, acknowledges his inability to explain it, and could not tell whether any of the devices set up in evidence as anticipating inventions, contained the invention or not.

Before the adjournment (X-Q. 98, p. 424), he was of the opinion that if defendants' exhibit "Priest No. 1" were bolted permanently by two bolts at the heavy parts to the cross bar, and had the sweep and the shape of his springs, with the small end of the main plate of the spring turned up to connect the side bar, then the invention would be the same as his. He also testified, previous to the adjournment, that the Matlock springs and the Ruple springs contained his invention, but after adjournment he could not tell whether the same Matlock springs, if placed upon a wider vehicle so that the heavy ends would not overlap each other, would contain his invention or not. (Rec. p. 428, X-Q. 111 to 116). But, forgetting the instructions of his attorney, on page 429, X-Q. 122, he states again, as in his specification, that the object of his invention is to get a long spring, that can be put in a small space, and adjusted to the different widths of bodies and still keep the same elasticity, and that hanging of the body low

is another part of his invention. Again, in answer to X-Q. 134 to 136, page 431, he admits that the Tilton springs, with the pivot bolt, D, omitted and the light ends secured by a Brewster shackle, would contain the Timken invention.

During this cross examination, after being instructed by his attorney, he attempted to put such construction on his springs as would cover in loose springs capable of adjustment across the body of a vehicle. For instance, if a set of springs that were made for a narrow body that would reach from one side of the body to the opposite side bar, were placed upon a wider body so as to bring the springs at their points of connection to the body near the center, or any distance on the opposite side of the center from the side bar to which they are attached, would be within the terms of his patent. It is needless to say that there is no suggestion of such construction in the Timken patent, but if there were, it would only be an additional reason for the Timken patent being void for want of invention.

Should anyone purchase a set of Brewster springs for a double two-seat vehicle and desire to use the same springs upon a single seat, narrow vehicle, it would hardly be claimed as invention should the party cut the Brewster spring in two in the middle and lap the ends past each other. Yet that is all Timken has done.

As before remarked, complainant has not testified himself, nor have any of his witneses testified that defendants structure infringe the claims of either patent in suit, or contains the invention of either patent as set forth in the claims. Nor, indeed, has any witness for complainant, or any witness in the case, testified that defendants' device contains the invention shown, described or set forth in either of the patents sued upon, with the exception of defendants expert, James W. See. He states very positively that he does not find the invention shown and described in either the Tilton & Stivers original or re-issued patent, or the Timken patent, embodied in defendants' structure. He does testify that respondents device responds to the invention set forth in the claim of the Saladee patent, and he is no doubt right about this, but

he finds the same invention fully shown in the Matlock springs, Kierolf springs, Wright springs, the Cooper patent, and various other structures and patents set up by defendants, which were known and used long prior to any invention of Saladee. Defendants' expert, who is entirely competent, as shown by his answer 2, pp. 216 and 217, after examining complainant's letters patent, states that the invention shown in the patents here in suit are fully shown and described except in minor details of construction, in the prior exhibits and patents set up in evidence, notably the Manton English patent, and states at the top of page 221 that the Matlock spring, the Kierolf spring and defendants' spring are simply the springs of the Manton English patent, with the heel ends of the sections not lapped so far as to produce a crossing, and provided with various different contrivances for attaching the heels to the wagon body. He finds even the attaching bar in the Manton English patent of 1817, and finds, on page 226, in answer to question 6, that the fifth claim of the re-issued patent of Tilton sets out the Timken device exactly and will be responded to by it. He can see no difference between the invention of the Timken patent and the fifth claim of the re-issue, and if the third claim of the re-issue differs from the third claim of the original, such difference is probaly due entirely to the alternative language referred to in the specification. And in answer to question 8, pages 227 and 228, he states positively that defendants' structure does not contain the invention of the Timken patent and gives his reasons therefore, stating:

"The structure (Exhibit A), coniains an invention different from anything shown or described in the Timken patent, the exhibit A having spring heels attached close together at the center of the wagon body and secured by a rigid clip which maintains the relation of the two heels to each other, and restricts the flection of each section to a length considerably less than half the length of the entire spring."

He finds, in the answer to the next question, that defendants' exhibit A is made in substantial accordance with the Stickles' patent, under which defendants have been operating. The lengthy

cross-examination of this witness only strenghtens the opinion here expressed, and fully describes the devices set up in anticipation. The learned counsel for complainant outlines in his cross-examination of this witness what he claimed to be the proper construction of the Timken patent, and briefly stated, it is as follows:

The Timken patent is for a double sweep sectional spring, having the attaching ends connected to the bottom of the buggy or cross-sill at any point between the side and the center, crossing the center, bending downwardly for a certain distance and then upwardly, to be attached to the side bar; having a thick end for attachment to the buggy bottom and a thin end for attachment to the side bar shackle, the curve being such as to allow the body to move up or down without expanding the side bars. It is needless to say that no such description is given in the Timken patent. Indeed, it is obvious, from an examination of the Timken springs introduced by complainant, and the Timken springs as shown in his patent, that there never was a Timken spring in use prior to the date of his patent. But his patent would not be invalidated because of the peculiar shape of his springs shown in the drawings of his patent, if he were the first inventor. The whole invention is in the suggestion that sectional springs may be used for coupling the body to the gear, said springs being arranged in pairs, side by side and crossing each other. If Mr. Timken was the first to do this, he would be entitled to include any spring vehicle so constructed, no matter whether it had the straight spring of the Manton English patent, the slightly curved spring of the Catterson English patent, the bolted curved spring of the Tilton & Stivers patent, the Priest, the Bushway, Kunkle Brothers, Brigel or Kierolf springs, because when it is once suggested, as it is in the Manton English patent, that it is desirable to use sectional cross springs for coupling the body to the gear, all else is within the province of the skilled mechanic. If side motion is to be obviated, he would only have to make his springs stiffer and use rigid shackles. If greater flexibility is desired, it would only be necessary to make the ends of his springs thinner and give

them more curve or sweep. If he desired to hang the body high it would only be necessary to give the inner end of the springs a greater arch, and the attaching end a slighter curve; if it was desired to hang the body low, he would know that the attaching end should have a greater downward curve. If he found, in practice, that the body in its downward movement, had a tendency to spread the side bars, he would know that this tendency could be overcome by scrolling the ends of the springs; and if he desired to press the side bars inward instead of outward, he would know, from the state of the art, that the ends of the springs might be scrolled around and attached to the sides, or even to the top of the side bar; like the well known Groot spring, which was held by Judge Wallace to anticipate the Brewster side bar vehicle. Or as the Manton English patent well states, page 606 of the record:

"The particular manner of attaching and fixing the springs in their place may be left to the descretion of the workman, who must adapt the springs in respect to their dimensions, weight and strength and mode of attachment, to their place according to the particular kind of carrioge to which they are to be applied."

As this patent is more than half a century older than Mr. Timken's alleged invention, there is nothing left in Mr. Timken's patent or in his springs as made and put upon the market, for which a patent should have been granted, and it is doubtful if it ever would have been granted by the Patent Office officials had it not been for the fire that occurred at the Patent Office a few weeks before the filing of the Timken application. As it will be seen by reference to the Official Gazette, Vol. 12, describing and illustrating the fire and the damaged portion of the building, the library, which contains the volumes of the English patents was involved in the fire. These volumes, all but a few of them, were rescued, but were inaccessible to the examiners, being piled up in the basement of the building until after the library was remodled. It is hardly possible that any examiner in the Patent Office would allow the Timken patent with the Manton English patent before him.

Another important patent limiting the Timken device is the Steward patent, October 25, 1870. The only difference between

the spring of the Steward patent and the Timken patent is that the Steward springs are attached at their heavy ends to the gear and at their light ends to the spring bar, which is coupled to the body. The expert See testified (Rec. p. 245) that these springs could be interchangeably used for the springs shown in the Timken patent and would act in the same manner, and that it would require no invention to attach them.

To the same effect is the opinion of the Supreme Court in 14 Sup. Ct Rep., 291. In that case the well known Wollensak transom lifter was involved. The nearest approach to the invention was the McClosky patent of 1868, which, as the Court say on page 293:

"In that patent an invention was described for opening and closing a series of passenger car ventillators or transoms, which consisted of a long rod sliding horizontally in a series of guides past a series of windows, and connected with each window by a separate arm so that by sliding the arm backward or forward the windows would be open or shut. If this device were turned into a vertical position, it would present the combination of the third claim under consideration. The parts of the device would co-operate in the same way whether used horizontally or vertically."

Complainant's expert in that case thought it was of the essence of the claim in Wollensak that it should be used in a vertical position; that if defendant's transom lifter were used horizontally, it would not be described by the language of the claim, because it would not be a transom lifter. But the Court well say that the novelty must be a novelty in the means or mechanical devices, and not in the use to which the combination is put, and cites with approval Knapp vs. Morss, 150 U. S., 221. (14 Sup. Ct. Rep., 81.

Now turning to Knapp vs. Morss, we find stated that the invention covered must consist of a new and novel means of accomplishing the result, and if the means consists of the mere adaptation by the application of mechanical skill of devices previously well known, there can be no valid patent, and stated also that:

"A proper test of the validity of a patent is in the application of the rule that what would infringe if later, would anticipate if earlier."

And that where a combination is restricted by the letters of reference to the drawings, there can be no infringement if a single element is omitted from the alleged infringing device, and in determining whether an element is absent, the patentee is not entitled to the doctrine of equivalents.

Another case in point is Gordon et al. vs. Warder et al., 14 Sup. Ct. Rep. 32. In that case the Court held that, while the Gordon patent was a valid patent, the defendant did not infringe, because defendant's device had not the adjustable feature of the Gordon patent.

In this case defendants do not infringe, because defendants' spring has not the length of spring or elasticity of motion described as an element in complainant Timken's patent.

A similar case is Magin vs. Karle, 14 Sup. Ct. Rep., 153, and the cases there cited. The language of His Honor, Justice Jackson, who delivered the opinion of the Court, with slight changes, may be applied exactly to this case.

The principle was well known at the time and date of the inventions set out in complainant's patent, that sectional cross springs could be used for coupling the body and gear of vehicles; that you wanted rigidity of spring it could be obtained by stiffening the spring itself, or making its connections rigid; that if you wanted to hang the body either high or low, that could be done by the proper sweep of the spring; that all different forms and sweeps of springs were well known, and many well known means of using them as couplings between the gear and body of the vehicle were well known; therefore nothing but mechanical skill was requiree to adapt the well known springs to attain any of the desired objects stated in either of complainant's patents. The Court held the Gordon patent void for want of invention, and also held that it was anticipated.

Another case in point is Giles vs. Heysinger, 14 Sup. Ct. Rep., 211.

In view of the above authorities, and they might be multiplied indefinitely, the Timken patent, if valid, must be strictly limited to the specific elements set forth in the claims, and so limited, defendants do not infringe. Their springs are not attached to the under side of the body at opposite sides; they do not cross each other and connect to the side bars on opposite sides; they do not obtain, therefore, the length of spring which is a described object of the Timken invention. Giving the most liberal interpretation possible to the Timken patent, in view of the well known Brewster wagon (to say nothing about other anticipating devices), Timken attempted to improve upon the Brewster by obtaining a greater length of spring than Brewster, which he conceived to be an advantage, giving greater elasticity and easier riding motion. Stickles found an actual defect in the Brewster vehicle which consisted in the weak mode of attaching the cross springs to the buggy body by bolts passing through the springs and the wooden cross sill, and conceived the idea of coupling the heels of the springs rigidly in a cast-iron box and fastening this box to the sill, so that the play of the spring in use would not affect the wooden bar, and that the springs might have a limited adjustment to adapt them to slight variations in the distances between the side bars.

It is not seen how any construction that might be placed upon the Timken, or even the Tilton re-issued patent, could save either one from being void for anticipation and for want of invention, but if it is possible to give any construction that would save these patents, such construction would certainly exclude defendants' structure.

It has been sworn to positively, both in the answer of defendants, and in the testimony of the expert witness for defendants, James W. See, that the defendants' structnre does not contain the inventions shown, described and pointed out in the claims of either the Timken patent, or the Tilton & Stivers re-issue, and the same is impliedly admitted in the testimony of complainant himself, and not one word of testimony in chief or in rebuttal was introduced by complainant to the effect that the structure of

defendants does infringe upon either of these claims. The bill of complaint should have been dismissed.

FOURTH POINT.

Even under the findings of the Circuit Court, that complainants patents were valid and infringed by the Sickles patent, the exceptions to the Master's report should have been sustained and nominal damages only awarded.

a. Complainant has waived profits and relied only upon damages. No damages were proven.

b. Complainant relies upon a license fee as a measure of damages. No uniform license fee has been proven, nor have any licenses been offered in evidence. There are three patents in suit, all the claims have not been infringed. The three patents vary in date, and the damages for the infringement of each have not been apportioned.

c. Complainant is entitled to no recovery from anyone who purchased the patented article from him or, which is the same thing, from his agents or licensees. The proof before the Master is that nearly all the springs found to be infringements were purchased from licensees of complainant. There is no proof that the license fee has not been paid upon these springs.

d. Assuming that the springs are the same as the Timken springs, and that defendants were making them to be sold and used as a combination that would infringe complainant's patent, defendants could not be held accountable for the springs sold for use upon vehicles upon which the so-called Timken springs could not be used. It is proven that many of the springs were used on what is known as the combination gear (like the Brewster gear), and that the Timken spring could not be used upon such gear. These two gears are well recognized as belonging to a distinctly different class of vehicles, and His Honor, Judge Lowell, in Brewster et al. vs. Parry, 14 Fed. Rep., 694, refused an injunction on the Brewster re-issued patent, because, as stated,

"There can be no doubt that the re-issue is, in terms, broader than the original and that it includes and was intended to include

one class, though not a large class, of carriages not covered by the original. The patent No. 139,348, describes and claims an improvement of carriages having the ends of the side bars supported by elliptic springs, by adding middle springs."

This is the combination gear, and His Honor says, further along,

"It is seen at once that the re-issue omits the end springs and thus covers wagons rigidly attached at the ends, which were not within the former claim."

This is the rigid gear, to which class of vehicles the Timken patent relates and, as the testimony shows, the Timken spring as made by his licensees, could not be used upon the above gear; while defendants' springs, like the Brewster springs which they much resemble, were, like the Brewster springs, adapted to either rigid or combination gear, and the proof before the Master is that many of defendants' springs were sold to be used with combination gear, for which the Timken springs could not be used. Defendants' springs, therefore, replaced the Brewster springs, and the Brewster patent, as before stated, has been held void by His Honor, Judge Wallace, in Brewster vs. Shuler, 37 Fed. Rep., 735.

Now as to the exceptions to the Master's report: His Honor overruled the first exception, in the opinion, p. 536, for the reason that the Master reports that there was an established license fee for the use of the springs, as appears by complainant's testimony in the case, and held that is sufficient to sustain the finding. The whole of the testimony before the Master and all the papers introduced were submitted to the Court. (Rec. p. 499).

"The testimony taken by the Master, the accounts filed by defendants, and other papers filed by counsel before the Master, are filed herewith."

A careful examination of the record, of the papers and of the evidence shows, beyond a doubt, that there was not only no license fees proven, but no licenses introduced in evidence and no competent testimony given in relation to them At the conclusion of the direct examination of the witness, Olin (page 524),

complainant's counsel offered the evidence taken by complainant in this case and there rested his case. It is a well settled rule that it is not competent in taking testimony in chief as to the question of infringement, to prove the amount of license fees or the licences, or the amount of profits that were made by complainant, and defendants counsel is not called upon to cross-examine upon that point before a decree sustaining the patent has been entered he may disregard the testimony, or may move to have it suppressed. It is true that complainant may offer the deposition or the questions and answers put to the complainant in the case in chief, or the licenses, if any have been introduced in evidence before the Master, if defendants' counsel is given an opportunity to cross-examine or bring out the truth in relation to these licenses, but it is not competent to throw the whole record at the Master and rest, without pointing out the portions of the record relevant to the only question that is before the Master; which is as to the profits or damages; but for the present, assuming that the testimony in the record which was, as contended for in the exceptions, first produced in argument before the Master, if produced at all (for the record does not show that they ever were introduced), were competent, it is still claimed that no license fee has been proven.

A license fee, to be accepted as a measure of damages, must be a fixed, uniform license fee, for, as His Honor, Judge Ross says in U. S. Nickol Co. vs. The Central Pacific R'y Co., instructing the jury:

"If you should find from the evidence that the plaintiff issued its licenses for the same privileges to different persons at different rates—in other words, if they were uncertain and irregular in amount—then I charge you that it cannot be considered that any fixed fees were established."

That is undoubtedly good law. It appears from the evidence here in the case in chief that Timken charged, as he states, sometimes $2.00 per set, sometimes $1.00 per set, sometimes 50 cents per set, and, in addition to that, paid the manufacturers who purchased springs from his regular licensees a rebate of 25 cents

upon all springs they purchased from the regular licensees and used on their vehicles. In X-Q. 164, page 435, he states that he has a contract with carriage makers in which he agrees to pay them a rebate of 25 cents on all patent springs used during the year 1887. He states on the same page, that Woodhull, of Dayton, Ohio, used to pay $1.50 per set, the year of 1887 he paid him 50 cents, and said he thinks Shuler pays him a dollar a set. And on the next page (436, R-X-Q. 1) states that for the year 1887, he paid The Columbus Buggy Company a rebate of 25 cents on all springs they used.

In the testimony before the Master (page 530) the witness is asked if he had ever read any of the licenses Timken had given to the spring makers and was asked about a certain clause contained in such licenses. This question was objected to by complainant's counsel as irrelevant, and that the license was the best testimony. Counsel for defendants then asked that the license be produced, stated that he had none in his possession, nor any means of obtaining the license, and requested that the license be produced. To this,

"Counsel for complainant says that he has no such license in his possession."

"Defendants' counsel requests of complainant's counsel to state of record whether or not there is not such a clause as is inquired about in the licenses given by Henry Timken to the different spring makers."

"Complainant's counsel don't propose to state anything about it because he don't know, and in the next place it is irrelevant."

In the face of this evidence it is not seen how the Master conld report that there was an established license fee, or how the Court could find from any testimony presented, either in the testimony in chief, or before the Master, that there was any such evidence as would justify the Master's finding. But it is clear from the testimony of Mr. Timken that there was no fixed license fee. Mr. Timken not only copied the Brewster side bar buggy but he also followed Mr. Brewster's peculiar and original mode of introducing his invention, as stated by His Honor, Judge Blodgett, in Brewster Company vs. Tuthill Spring Company, 34 Fed.

Rep., 769, after describing the Brewster buggy and its well-known popularity, and stating the fact that the Brewster springs became known to the trade as the Brewster springs and were kept in stock by large manufacturers and jobbers.

"Complainant had first issued licenses to a large number of manufacturers, authorizing the use of the patent in the construction of vehicles; but after a time complainant adopted a method which seems to have been wholly unique and new at the time, of licensing spring makers to manufacture and sell springs adapted to use in the combination covered by this patent; the spring makers to collect from the carriage makers a royalty for the use of complainant, in addition to their price, for the springs as manufacturers, and also to accompany each set of springs sold for use in the combination covered by the patent with a plate with the word "patented" stamped thereon and the date of the patent; the object of this arrangement being to make the spring makers collect for complainant its royalties and to the extent of the springs sold, and rayolties so collected to license the use of the patent."

This is the method adopted by Mr. Timken and, like the Brewster wagon, his patent is not upon the springs. But Mr. Timken went one step further. He advertised for the spring makers, sold the springs for them through his agents and others to the manufacturers, and paid the manufacturers a rebate of 25 cents per set upon all springs purchased from persons who had undertaken to collect royalties for him from the manufacturers. In short the money paid by the so-called licensees of Mr. Timken was instead of license fees, simply commissions to him for the springs sold by him through his own advertising and through his traveling agents. In answer to X-Q. 26, Rec. p. 402, "About how much money have you spent yearly up to the present time in advertising?" He states (A. 26), "Well, I have spent, that is pretty hard to say, some years I have spent more than others, I should think I have spent in all during that time, with traveling men and advertising, from forty to fifty thousand dollars."

The first exception should have been sustained.

Third exception: The Master disregarded the testimony of the complainant's own witnesses to the effect that nearly all the

springs complained of, which were made and sold by defendants, were made by the licensees of complainant. His Honor, Judge Sage, says, and rightly, on page 537, that the proposition of counsel for defendants is, in effect, that the fact that defendants had the springs which they sold manufactured by complainant's licensees, is a complete defence to complainant's suit for profits or damages.

"It is not proven or claimed that the licensees manufactured or sold springs for defendants under their license. * * * The licensees not accounting for them to the complainant, nor regarding them as being within the terms of the license but, on the contrary, being assured by the defendants that they were not an infringement of complainant's patent."

Nothing was proven to the contrary and the burden of proof was on complainant. His Honor, in effect, rules that it is no defence to a suit for a patent that one has purchased the alleged infringing device from a licensee. This is contrary to the rulings of the Courts in the following cases:

Adams vs. Burke, 17 Wall., 453.
Paper Bag cases, 105 U. S., 770.
McKay vs. Wooster, 2 Sawyer, 37. (3 O. G., 441).
Holliday vs. Mathison, 24 Fed. Rep., 185.
Wilder vs. Kent, 15 Fed. Rep., 217.

Mr. Justice Miller, in delivering the opinion of the Court in the first case above cited, states:

"We have repeatedly held that where a person had purchased a patented machine of the patentee or his assignee, this purchase carried with it the right to the use of that machine so long as it was capable of use, and that the expiration and renewal of the patent, whether in favor of the original patentee or his assignee, did not affect his right. The true ground on which these decisions rest is that the sale by a person who has the full right to make, sell and use such machine carries with it the right to the use of that machine to the full extent to which it can be used in that point of time."

The article, in the opinion of the Court, passed without the limit of the monopoly.

There is no proof that these licensees did not pay the licenses

to Mr. Timken, but His Honor, Judge Sage, seems to think that the burden of proof is on the defendands instead of on complainant to show that the license fees were not paid.

As before shown, the spring makers simply made the loose leaves of the springs, attached Brewster shackles to them and sold them to whomsoever ordered. If a carriage maker used these springs, there would be no question but that he had a right to use them. Defendants bought the loose leaves with the Brewster shackles attached, precisely as the carriage makers did, and relied for their profit upon attaching the springs to spring bars and selling them in this condition to the manufacturers to be used upon vehicles.

If His Honor, Judge Sage, was right in overruling the third excepting, then Mr. Timken would not only have the right to recover from defendants, but he would also have the right to recover from all the carriage makers who have purchased the Timken springs, fitted them on spring bars and attached them to vehicles, unless they could show by affirmative proof that Mr. Timken's so-called licensees had paid the license fee upon the springs they had purchased. The mere statement of this absurd proposition is sufficient for its refutation.

The fourth exception is not, as stated in this opinion, in conflict with the facts as found by the Master. On pages 497 to 500 of the record is the account filed by the defendants at the request of the Master. On page 502, the complainant disputes the pretended account, says it is incorreet, does not disclose the full amount of profits nor the full number of springs, rejects the account and calls for the books. Thereupon the books are produced, one of the defendants (T. D. Oltn) put upon the stand, and his examination is found from page 503 to page 534 of the record. On page 534 it appears the examination was adjourned from April 26th to May 13th, 1889, and there the case properly ended. No notice was ever after given to defendants that anything further would be done in the matter, but afterwards, on July 19, 1889, without any notice, complainant filed a paper with the Master, in the following words:

"Complainant hereby accepts the account filed by the defendants as to the number of springs which were made and sold since the formation of the partnership as correct, but affirms that said Thomas D. Olin did, prior to that date, make or sell 1,500 sets of said infringing springs, as the books show, and asks that said amount be assessed and found against him, in addition to the partnership account.

The complainant elects to take damages instead of the profits.

It will be seen that what is above stated related also to the fifth and sixth exceptions.

Seventh exception: This exception was overruled; as the Court says there is nothing but the statement of counsel to sustain either it or the sixth exception. Let us look at the sworn statement of complainant's own witness. (Page 527 of the record).

Q. Did you ever see the Timken spring mounted upon spar springs like the combination spring you sold?

A. Yes sir, I have seen one and only one, but I will say this that the party that owned it used it not quite a week, when he had the spar springs taken off and the head block and changed to a rigid gear.

Q. Why was this done?

A. On account of the roll. You could hardly turn a corner on a little trot that the buggy would not spring over.

Q. It is a fact then, is it, that the Timken spring, as made by his licensees, and shown in his letters patent, is not adapted for use on the spar springs, or what you term your combination?

A. No sir, it is not practicable, as the swing is too great; it would have to be changed altogether. As Brother Eccles says, you wouldn't get the double sweep spring in it if you used it in connection with the spar springs.

Q. So far as you know, it was never sold in such a combination?

A. No sir, and as I stated before, I never saw it used except in this one instance.

And again, on page 259:

Q. Then it is a fact that the combination gear was not sold to any parties who have used the Timken spring?

A. They could not use the Timken spring on that style.

The above seems to be something more than a mere statement of counsel. It looks a good deal like proof and it was not attempted to be denied or rebutted by complainant.

The testimony above quoted also applies to the eighth exception.

The ninth exception is included in what is said above.

Tenth exception: There is said to be no foundation for this in the record, but we have seen before, from the testimony of Mr. Timken, that he licensed Mr. Woodhull at 50 cents royalty to make springs under the Woodhull patent.

See also page 532 of the record before the Master:

Q. What is the Woodhull spring, if you know?

A. The Woodhull spring is simply the Timken spring with the fulcrum put about four inches from the end; that is the heavy end of the spring.

Q. Was that in competition with your spring?

A. Yes sir, that is, in competition with it.

Q. Do you know whether that is licensed by Mr. Timken?

A. Yes sir.

Q. Do you know what the license on that is?

A. The license on that used to be 50 cents, but Mr. Woodhull says he is still getting a reduction on that.

Q. That license is from Henry Timken?

A. Yes sir.

Q. Can you state how many of your customers were customers of Mr. Henry Timken or purchasers of the Timken spring prior to the date you commenced selling to them?

A. Well, there is probably the same customers of the Timken spring to-day as there were then in buying the goods. My goods go on the vehicles where they would not have Timken's anyway.

Now, it will be seen from the testimony before the Master

that there was no attempt to prove a license fee; that the full statement of account given by defendants, giving the amount of profits they had made, was rejected, and after a lengthy examination of the books and of one of the defendants in order to prove profits or damages, without avail, complainant then went before the Master, without any notice to defendants' counsel, waived all profits, and elected to take damages, and it is submitted that there is nothing in the record (and it is all before this Court that was before the Master) that shows a uniform established license fee for the use of the so-called Timken inventions.

The decree of the Court below should be reversed with costs.

Repectfully submitted,

GEO. J. MURRAY, *Counsel.*

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1893.

T. D. OLEN, *et al.*, *Appellant,*

vs.

HENRY TIMKEN, *Appellee.*

EQUITY, No. 234.

APPELLEE'S BRIEF.

STATEMENT.

This case was brought in the Court below by the Appellee for the infringement of three patents, set out in the bill. The case was decided by the Court below after full hearing, for the complainant, this Appellee; and after being re-opened after judgment, to allow the defendants to introduce newly discovered evidence, to-wit: the George Washington coach, was again, upon argument, decided in

favor of the complainant, adjudging all three of the patents valid, and that they were all infringed by the defendants, now Appellants, and the Court ordered an accounting of the profits and damages to be taken, and referred it to a master for that purpose. The defendants filed and argued a motion for rehearing, which was refused. The accounting of profits and damages was taken, and the master found that the complainant had established a license fee, and that the amount of damages sustained, as per that established fee, was $27,-897.75, to which finding the defendants excepted and argued the same to the Court, which exceptions were overruled by the Court, and the master's report was in all things confirmed. Judgment thereon was rendered for the complainant, and perpetual injunction entered against the defendants. The appeal was then taken to this Court by defendants. No superdius bond was filed, but only a bond for costs.

POINTS OF LAW AND FACT.

In accounting in an Equity case for infringment of a patent, the complainant can recover in addition to the profits accruing to the defendant all damages, he, the complainant, has sustained in excess of such profits.

Tilghman v. Proctor, Supreme Court U. S. May, 1888, No. 6. Book 31, p. 668, S. C. R.

Act of July, 1870, Chap. 230, Sec. 55 Statute at Large and Sec. 4021, Revised Statutes.

Birdsall v. Coolidge, 93 U. S., p. 64-69.

Goulds M'f'g Co. v. Cowing, 105 U. S., 253.

Birdsall v. Shaliol, 112 U. S., 485-488.

Thompson v. Wooster, 114 U. S., 104.

Thus it is well settled by the patent act of 1870, as well as by the cases cited, that the Court must assess the damage, and it affirmed the master's report, which assessed the damage to be $27,897.75. This

finding was based upon the regular established license fees of $2.00 per set of Springs up to January 1st, 1886, and $1.00 per set from that time on.

See Master's Report and Complainant's Evidence, p. 497, 499 and 403, Q. 33.

The whole number of Springs made by defendants was taken from the defendant's statement filed before the Master.

See Master's Report, p. 497.

Regularly established license fee is the proper measure of damage for an infringement.

See Walker on Patents, cases therein cited and Tilghman vs. Proctor, Supra; Carey vs. The Sewell M'f'g Co.; McKenna and Atchison, Judges, Official Gazette, April 23d, 1889, p. 525; referring to Clark vs. Wooster, 119 U. S., 326; Burdell vs. Deering, 92 U. S., 716.

This rule of law is so well settled that it will not be disputed by Appellants.

Twenty-two Spring makers sought to be and were licensed by the patentee, and they paid the license fee of two dollars per set of springs, manufactured from 1879 to January 1st, 1886, when it was voluntarily reduced by Com. to one dollar a set, and they continued from that time to date of decree to pay one dollar per set.

See Timken's evidence, p. 403.

This was due to the

MERITS OF THE INVENTION

which were numerous. (See p. 402, Q. 21, p. 403, A. 35, p. 404, A 37, 39–43.

The Timken Spring is bolted with its heavy end to the cross-bar

and does not spring on but *one* side of the fulcrum. The heavy end is bolted fast. (P. 407.)

Timken was working by his invention to get an easy riding vehicle, and at the same time set the body low. (P. 400, A. 14.) He attained this in his spring (p. 401) and got numerous testimonials to that effect and praising its merits. [P. 401 and p. 551–557.]

The Timken Spring has a double sweep to allow the body to move up and down between the side bars. From the heavy ends it turns down and at the light end it turns up. This is what I mean by double sweep. (P. 405, Q. 43, p. 407, Q. 58.) Timken Exhibit Three Prime (3′) is made to a scale from the Timken Patent. (P. 407, Q. 60.) (P. 417, Q. 24.)

The Springs adjust themselves. (P. 427 X A. 107. P. 427, X Q. 110. X Q. 122, 123.)

INFRINGEMENT.

The defendants infringed all three of the patents, because their spring vehicle was the same as complainants and embodied all the elements of the several patents; and because they accomplished the same objects in substantially the same way. A mere inspection and comparison of the two vehicles will show this. Non-infringement has not been seriously contended for by the defendants heretofore. Neither of them went on the stand to show that they did not infringe.

For evidence of infringement see Complainants evidence
P. 426—428. P. 404—405—407.

Witness, Zenas Varney, p. 30 and 31.
Q and A 4—16 and stipulation, pages 32—35.
See Com. Ex. A., Defendants' Springs.

Com. Ex. A′ (prime) Periodical Carriage Monthly, p. 69.
(P. 30—31.)
[See A′ Ohlin Add—p. 557.

It is admitted that the Complainants' Exhibits A and A′ prime correctly represents the defendants springs and the manner of attaching them to the running gear, and that they were thus made and sold subsequent to the date of patents sued on and before bringing this suit.

See Stipulation, and Timken's evidence, p. 32 and 421-425.
See comparison of vehicle springs in blue prints in Argument.

Comparison of the two devices is sufficient proof of infringement when the inventions are embodied in machines.

Imhauser vs. Buerk, 11 Otto, 647.
Fuller vs. Tentzer, 4 Otto, 288.
Hudson vs. Draper, 4 Cliff. 178.
Blanchard vs. Putman, 8th Wallace, 426.
Bules vs Coe, Meyers Fed. Decis., 210.

The defendant's spring vehicle accomplishes substantially the same results in substantially the same way, and therefore infringes.

Smith vs. Downing, 1st Fisher, p. 64.
McCormick vs. Seymore, 2d Blatchford, 240.
Werner vs. King, 6th Otto, 218.

The defendant's springs not only operates on the same principle and performs the same results, but are identically the same in form as the complainant's; mere additions will not avoid infringement.

Miller's Falls Co. vs. Ives & Co., 14 Blatch., 169.
Haselden vs Ogden, 3d Fisher, 378.
Howe vs. Krunsmann, 1st Blatch., 488.

McCormick vs. Seymore, 2d Blatch., 240.
Hoffheins vs. Brand, 3d Fisher, p. 218.
Shaver vs. Skinner, 30 Fed. Rep , p. 70.
Sarven vs. Hall, 9th Blatch., p. 524.
See Timken's evidence, Q 57, 58, 61, 62, 63, 64. 65, 66, 86, 87, 88.
X Q. 24, 30, 107, 109, 110, 122, 123, 125, 126, 129.

THE COMPLAINANT'S SPRING EMBODIES INVENTION.

It was the result of experiments; it met with universal commercial success and recognition by those skilled in the art of spring making, and drove almost all other spring vehicles out of the market, from the time it was first introduced, to such an extent that about 400,000 sets were made and sold from 1879 to 1887, and 22 spring makers were licensed, at their own request, in a short time at a high license fee of two dollars per set.

This success was achieved in a field where other inventors had labored for years.

These are evidences of patentable novelty, evidence of invention over mechanical skill, and evidence of the validity of the patent.

As to proof of see
Timken's evidence, Q 5 to 15, p. 398.
Q 27 to 37, p. 402, X Q 24—28, p. 416.
And as to the advantages of the spring over others see
Timken's evidence Q. and A. 37 to 44, p. 404.
As to the law of these propositions
See Loom Co., vs. Higgins, 105, U. S. p. 580.
Smith vs. Goodyears Dental Co. 3 Otto, 486.
Smith vs. Woodruff, 1 McArthur, 459.
United States Stamping Co. vs. King, 17, Blatchford, 55.

Western Elect., M'f'g. Co. vs. Chicago M'f'g. 14 Fed. Rep. 691.

Ward vs. Grand Stone Co. 14, Fed. Rep. 696.

Hicks vs. Otto, 19, Fed. Rep. 740; also 28, Fed. Rep. 195.

Hoe vs. Cottrell, 17, Blatch. 546.

Shuster vs. Davis, 16, Fed. Rep. 364.

PRIOR STATE OF THE ART.

None of the Defendants devices except some of the patents antidate the Complainants patents; and none of them antidate the invention of Timken, except Priest's, and he has patterned after the Tildon patent, and is subsequent to it.

Timken's invention dates back to shortly after the Fair of 1875.

See Timken's evidence Q and A, 17—20, p. 401. Q and A 3—12, p. 398.

Q. A. 24, A. 14 X Q. 19.

Publications in Post-Dispatch, p. 401, Day Book,

And Timken's Ex. 2 prime corroborates Timken.

(See said Exhibit and Timken's evidence, Q and A 17—20, p. 401.)

John Seller's buggy, the one mentioned in testimonials was made in the winter of 1875-'76, and sold in July 1876.

See Seller's testimonial, p. 543, and Timken's evidence, Q and A, 17—19, p. 401.

Book Accounts corroborate Timken.

See Timken's evidence, Q 3, p. 398. X Q 5—9, p. 414.

Durie's evidence, 3—9. p. 440.

He shows from books kept by him the several sales of Timken Springs in 1876 and 1877. Page 440—446.

Durie came to work for Timken somewhere between October 15th and November 15th, 1876. (See Durie's evidence, p. 440.) The John Sellers buggy was out at that time and had the appearance of

He remembers that the Timken Spring had been in use six months before his purchase. (Q and A 5 and 6. P. 472.

John Sellers corroborates Timken. He bought a Timken Spring Buggy or Road Wagon from Timken between June and September 1876. Timken says July. (P. 473.) Had the same springs on as are on the "Com. Gage Buggy." (A 4.) When I bought it his shop was on east side of 6th, between Morgan and Franklin Avenues. (A 6.) I traded for this buggy. (A 7. Page 473.)

It had been in use before I bought it. (A 10. P. 473.)

He wrote the testimonial, and the road wagon which I purchased from Timken was the one referred to in that testimonial. (A 16 and 19. P. 474, p. 557). See Com. Ex., Globe-Democrat, March 10th, 1878. P. 557.

McElrath corroborates Timken.

He bought a buggy with Timken Springs on, the same as are on "Complainants' Gage Buggy" before Timken got his patent, for he wanted to purchase an interest in it and Timken told him he had not procured his patent yet. (Ans. 3 to 9. P. 477.)

This evidence conclusively shows that the invention of Timken was in practical working order and on sale and general use long prior to July 1876, when Sellers made his purchase, and had been put upon one buggy and used from fall of 1875 by Mr. Timken himself, proven by all these witnesses and corroborated by the clearest documentary proofs.

This antedates any device which the defendants have produced, except what a witness by the name of Priest said he made, which does not come within gun shot of the Timken invention.

THE RUPLE SPRING.

The defendants, Ruple Spring, according to Blume letter, (page

549) was not made until 1877. The double sweep spring from which Ruple made his spring was furnished him by Kemmerer in the fall of 1876. [Letter of J. M. Kemmerer, page 547.]

Kemmerer first knew of these springs when he rode in the carriage having these springs on in April or May 1877. (See Kemmerer, defendants' witness, Q and A 7, X Q 33, X Q 35. p. 331.) In 1878 Ruple told him Henry Timken was ahead of him. (XQ 36 and XQ 66.) Books from which entry was made by which Kemmerer fixes the time of selling spring to Ruple were destroyed. (XQ 67 and 73. Kemmerer evidence, p. 326 and 327.)

William Blume says his factory burned down in February 1876, and he did not get started until May. (See Blume, Q and A 9.) After he had rebuilt, Ruple came up there, and said he had tried the cross-springs, and the objection was, they shoved the side bars; they were elongating too much. (Blume, Q 8, A 9.) I suggested to him to have a set made with more bend in the ends so as to take up the stretch. (See Q and A 9.) I told him to send up a set as soon as he got them in better shape and I would build a buggy and try them. (See Q and A 9, p. 333.)

Blume's letter says that he made a buggy with those springs on which Ruple furnished him in the fall of 1876, or spring of 1877. He thinks it was in 1877. (Letter of Blume, p. 549 and 548.)

After this Blume bought of the regularly licensed spring makers. (Blume, Q 13.) The ones I got from Ruple are not so crooked on the end as the present Timken Spring, we kept giving them more bend on the end as "we had customers complain of them crowding out the side bar we saw the necessity of giving them more sweep." (Q & A 14, Blume.) It was not until the fall and summer of 1876 that Ruple began to talk about his spring. (XQ. 6 & 7.) Blume's books had been destroyed. (X Q. 13, 14 & 15.) "If it was a matter of life and death I would not swear to the date." (XQ 16)

KEIROLF SPRINGS.

The "Defendants' Exhibit, Keirolf Springs," were first made and put upon a buggy in "May or first of June 1877," according to Keirolf's evidence, [A 7–10, p. 56], according to his letter, March 5th, 1881, to Timken, he invented it and manufactured and put the first one use in the spring and summer of 1877. [See his letters to Timken, March 5th, 1891, and October 15th, 1881. [Page 549.]

This puts his supposed invention at least eighteen months subsequent to the Timken invention, and eleven months subsequent to the sale and delivery of the Sellers buggy sold by Timken containing the Timken Spring, which was July 1876; also nine months subsequent to the bill for Timken Springs made by the Spring Perch Company which was September 23d, 1876. (See Spring Perch Company Bill, page 544.)

This device fails as an anticipating device because it is subsequent to the Timken invention, and it is not necessary to inquire what it was or how strong the evidence is of its existence. All the evidence in relation to the Indianapolis use is with reference to this Spring.

The Ruple Spring and the Keirolf Spring having both failed in point of time, both having been made long subsequent to the Timken Spring, and after Timkens' cuts on his envelopes and in his advertisements. [See Timken's envelopes, p. 553, and advertisements in Globe Democrat, and testimonials in Post Dispatch. See p. 557, p. 542, and Exhibits with cuts.

PRIEST SPRING.

Next is the Priest Spring, and with relation to this use if Priest is to be believed at all, his spring was that shown by the cut in his

letter to Mr. Timken, dated September 27th, 1881, long after Mr. Timken had made a great success of his spring and when it had been extensively advertised, and universally known among carriage manufacturers and others. [See p. 550.] At least Priest knew it, and so mentions it in his letter of September 30th, 1881, where he informs Mr. Timken that he had sold "precisely the sam kind of spring in every mioute respect" as the Timken Spring; and claimed a consideration at his hands, as he, Timken, had made so much money out of it, and as the priority of the invention rested with him, Priest. [See p. 551.]

After writing this threatening letter of September 3d, and after Mr. Timken had written him, asking him to send a cut of his Priest's Spring, [p. 406,] he wrote the letter of September 27th, 1881, and enclosed the cut of the spring; and, also again threatened Timken by saying "Woodhull had sent him a letter inquiring about the Priest cross spring." [See letter, p. 550.]

This cut, then, must represent a spring as near the Timken Spring as he, Priest, ever made. He afterwards swore to it. [See Priest's affidavit, p. 554 and cuts, p. 556. See Priest, XQ. 95, p. 134.]

He also sold the invention to Timken for four hundred dollars; [See Priest, Q. 53, p. 127,] made the application for patent on his spring, which he sold to Timken. [p. 125. See patent to Bridges marked Defendant's Exhibit, Priest's patent, April, 1882.]

This spring has spring action between the fulcrum and the place of attachment to the spring bar.

"It was the same in action as the one which he applied for; that is, it was double acting, and only differed from it in the position of the fulcrum and in bolting the one to the sill instead of attaching it to cross bar." "In no case did I ever construct a spring that did not have a space between the cross bar and the spring, between the points where it was fastened to the sill and the point where it rested on its

fulcrum, so that it would spring between these points. (See affidavit, p. 555.)

The Priest Spring, then, according to Priest's letter to Timken, according to his affidavit, describing it when Timken paid him four hundred dollars for it and according to the application made for the patent, was a double acting spring, fulcrumed at or near the center, and having *spring action on both sides* of the fulcrum.

It has a resemblance to the Tildon, which was patented years before, but no resemblance to the Timken either in form or principal of invention, even though it existed at the times and places Priest says it did.

DID PRIEST TELL THE TRUTH?

His Honor, Judge Sage, who tried this case below, in his opinion in overruling the motion for rehearing said: "The Court will, however, say that it rejected the testimony of the witness, Priest, as altogether unreliable, the record making it clear, not only that he contradicted himself on material points under circumstances causing his contradictory statements to amount to impeachment, but also that in a prior litigation between Complainant and parties other than these defendants, and involving the patents in suit in this case he was in the market as a witness for sale to either side." [See p. 489, last of second paragraph.

The evidence bears the Court out in this conclusion, by Priest's contradictions.

PRIEST'S CONTRADICTION.

Priest says springs No. 1 are a very close example of the Meisner Springs and that the Meisner Springs had a half eliptic spring

on at the same time that the cross springs were on. [See Priest, 10-15, p. 122.] Priest says he first knew of springs like Priest's Exhibit, No. 2, in 1875. [See Q. 19, 20, 21, 22, 23, 24, 25 and 26, p. 123.]

Priest left Randolph street, Detroit, and went to Gross Point. He does not remember the date exactly, but 1870 '72 or '73. He made the Meisner buggy on Randolph street. [Priest A. 4 to 10, p. 121.] When he made the first one for Rolf he thought of the Meisner Spring. [Priest Q. 59 & Q. 27, p. 128.]

Priest does not know that the springs made in 1876, were like Priest's No. 1 and 2; and when asked always avoids the question or modifies the answer.

As to cross springs put on Rolf's buggy, January 6th, 1876, he cannot recollect whether they were like Priest's Spring, No. 2, or not. [Priest, Q and A, 336, page 162.] He says in relation to charge of February 3, 1876, "I *think* the charge was for work got up on a bar similar to this drawing." [Priest A 339, p. 163.]

Again:—I am pretty positive the springs are something like No. 2, as near as I can recollect. [Ans. 340, p. 163.]

Again:—I *think* these Rolf springs were *similar* to No. 2, of April 17th, 1876, [p. 163] "something like" No. 2. P. 159].

Again:—There were cross springs similar to No. 2 of Exhibits here, dated May 16th, 1876. [See Priest from 305–341.] He does not say that any of them were the same as Priest's Springs, No. 1 or 2. He went back to Gross Point in 1876.

These evasive and qualified answers were made after he had examined the drawing in his affidavit of December 23, 1881. [See XQ. 87–99), and for this reason were not made as positive as answer to question 14, where he says "they were the same kind."

Priest never made anything but a Tildon Spring and knew he

did not. That was why he sold out. [A. 358, p. 167.]

Timken contradicts Priest as to Defendants' Exhibits, Priest's Spring, No. 1. [See Timken, p. 407, Q. 59.]

Timken contradicts Priest on many points. [See Timken's evidence.

Priest said he was the patentee of patent, No. 256,161, dated April 11th, 1882, applied for, December, 23d, 1881. [See Priest p.125.]

After the patent was introduced in evidence he was asked to examine it again by his own counsel, which he did and said that it was before he signed the application for the patent that he learned Timken had a patent. [p. 125, Q. 43.]

He had had his memory fully refreshed by seeing a copy of the patent, yet, in cross examination he denies that he ever signed any application. [See Priest XQ 87-89, p. 132.]

He then states he won't swear; he did; and won't swear he did not the sign the application for a patent. [See Priest p. 134, XQ. 90–94.] Don't know whether he did or did not. [XQ. 93, p. 134.]

In X. Q. 87 he says he does not recollect that he signed any application. X. Q. 86, he says he made the statement at the time he, Timken, paid him the four hundred dollars. In X. Q. 88–94 denies postively that he ever signed a specification or application for his spring. (p. 132-134.)

For the complainant's counsel he admits signing; for defendant's counsel positively denies signing the application for a patent.

Priest said he never touched a cross spring after he made the Meisner Spring until he returned to Jefferson Avenue in Detroit. (P. 139, XQ. 153.) He says the next springs he made after the Meisner was in Gross Point. (p. 153, XQ. 245-248.)

His letter says the same kind of spring was made and sold by me in 1873. (See letter, p. 551.) He says date 1873 in letter is wrong; it should be before that. (See XQ. 248, p. 152.) Says he is alluding to the Meisner Spring in this letter (p. 152, XQ. 247,) and the date should be 1875. (See p. 153, XQ. 250.) Priest had forgotten the Meisner Spring in 1875; for he says he built the Rolf buggy at that time and that he first commenced to put the Bruster Spring on and some one told him he would have to pay royalty and during the time he thought of the Meisner Spring. (P. 128, Q. 59.)

MORE OF PRIEST'S CONTRADICTIONS.

He says he did not know they wanted him as a witness, or were after him as a witness. (XQ. 172 to 174, p. 142.)

In the very next answer he says he went to Canada to keep from testifying. (XQ. 175 and 176.) That he stayed there pretty near a week. [XQ. 181.] Next question he says he did not keep track of the time. (XQ. 182, p. 143.)

He says he does not know at what hotel he stopped in Canada, that he telegraphed to Timken where he was. (XQ. 183, p. 143.)

He says he stayed in Canada a week at his own expense, because he did not want to break the Timken patent. (XQ. 183 to 186.)

He says the Meisner Spring did not have any spring action between the fulcrum and the place of attachment and he builds the model to represent a rigid spring between these points. (See XQ. 67, p. 131, and model.) Yet, in his affidavit which Timken had him prepare giving a history of his invention when he paid him the four hundred dollars, he positively says he never built a spring that did not have spring action between those points. (See affidavit, p. 554.)

Priest becomes very precise in X. A. 76 when asked if he did not make this sworn statement and says he does not know as he did make

the statement, and will not swear that he did not make it, though a copy of it and drawing had been shown him. (P. 132, XQ. 76-78.) Says he did not know when the statement was made, but it was made at the time he paid me the four hundred dollars. (XQ. 87, p. 133.)

He denies in X. Q. 94 that he ever made a sworn statement to the effect that all cross springs which he made prior to 1877 were double acting springs. (P. 134.)

Says he does not recollect anything about the drawing he attached to the affidavit. [XQ 101, p. 135.] When shown sketch on p. 556 he said he believed it was a part of the drawing in the affidavit. [P. 134, XQ 95.]

These answers were all made by Priest before he was aware of the fact that I had the statement preserved.

Add to these contradictory statements the statements and conduct of the witness in relation to going to Canada to avoid having his deposition taken in a former suit, which will appear on page 142, 143, 144 and 145.

Add to this the fact that after he had sold his interest to Timken, he told Firestone, who was attorney in a former suit to defeat this patent, that he did not know where there were any of those cross spring buggies, yet as soon as Firestone gave him $50 went and showed him the Gwyn buggy and made a model for him to represent the Meisner buggy. [P. 144, XQ 190–191.]

Add to this the excuse he gives for going to Canada that it was to prevent the breaking of the Timken patent, which he was afterwards willing to try to do, for the small sum of $50. (Page 143, XQ, 184.)

He does not deny that he afterwards testified voluntarily for the defendant in the Columbus case. [XQ 186, p. 143.]

He says he does not give his testimony voluntarily in this case. [XQ 187]. Yet he comes all the way from Gross Point to Cincinnati to testify. [XQ 187, p. 143.]

In next question admits that he came of his own free will and did not have to have an officer bring him. [XQ 188, p. 144.]

In Cross Q 190 he admitted that he had lied about the Pontiff Gwyn Buggy.

He first told Firestone he did not know of any and as soon as Firestone gave him $50 he turned right around and went to Pontiff Gywn and showed him the buggy. [XQ 190, p. 144.]

Add to this his numerous contradictions with regard to even the hotels which he stopped at while in Canada, and other matters which can be found from p. 141–156, and all his contradictions about the letters written to Timken, and it drives one to the irresistible conclusion expressed by Judge Sage in his opinion.

These book entries showing date to be 1875 were put up by Priest or some one else. He did not make or sell these buggies in 1875.

In obedience to the objection of the defendant's counsel he refused to write the dates, "1875, Detroit, April, cash paid for rent and labor on shop." (See p. 157, XQ. 367.) He don't swear these year dates are correct, but says when asked if they all appear at top of page, "that he believes it is all correct so far as he knows."

His conduct with regard to these books in not producing them at the taking of the first deposition in the former case against the Columbus Buggy Company; as to changes of dates in book, (see p. 170-174.); the manner in which the dates of 1875 and months of year as will appear, pages 169-174, were entered and his refusal to write the entry which he said he made in his own hand writing are all

strong arguments that the date was 1876 instead of 1875; and this coupled with the cross examination of Rolf on his book account conclusively prove that both books have been tampered with to date the invention back of 1876. (See p. 287 & XQ. 65, p. 290.

ROLF'S BOOKS.

The leaves cut out of the book from 1-9 is a bad omen in book proof. (Page 291, XQ 68-72.) The fact that Rolf does not know the book-keeper's name who cut the leaves out casts more doubt on this book. He cannot find book following this book in point of time. (XQ. 77, p. 292.)

He was mistaken with reference to the time of the Prescott shipment. (Page 295, XQ. 107.)

Rolf does not remember the name of the hackman who brought Sir Prescott to his place, (p. 295, XQ. 105,) nor does he know where he stopped. He just drove up with the hackman and he sold him a job with a new kind of a spring—had none in stock and was to make it for him. He paid for it before seeing it or one like it. Strange conduct for a titled man! (Page 295, XQ. 103.) The hackman's name he does not know. (Page 295, XQ. 105.)

The whole cross examination of Rolf from page 287-296 casts a shadow of a doubt over this evidence.

Priest never made any cross spring buggies that were practical buggies until in 1876, long after the date of the Timken invention.

PRIEST'S SPRINGS WERE EXPERIMENTS.

Priest experimented with cross springs from the time he got on Jefferson Avenue up to the time he made the affidavit in 1881. (XQ. 134, p. 137.)

He says the Meisner Spring suited him very well. (XQ. 147, page 139.) And then says the reason he did not put it on the Rolf work while on the Avenue was because "That link was an objection. It let the body go side ways too much and made a rattling noise." (See XQ. 151, p. 139.)

He has had so many he don't know how many different kinds of springs and he does not remember what he had on hands when Timken called on him in December, 1881. (XQ. 158, p. 140.)

Priest had not matured his spring in 1875 when he says he made the Rolf Spring. (See Q 59, p. 128.)

He had tried many different ways. (See Priest XQ. 206.)

PRIEST'S SPRINGS DO NOT CONTAIN THE TIMKEN INVENTION.

Priest's Springs No. 1 does not contain the Timken invention. [Timken's evidence, p. 423, XQ. 91-100 also p. 424.]

PATENTS DO NOT ANTICIPATE.

None of the pre-existing patents contain the invention of Timken. They lack just that element which made Timken Spring a success, namely, the tight shackles and double sweep and adjustability to different sized vehicle, length of spring and setting the body low. None have the rigid frame which is made by means of side bars and head block and hind axle. None of them take up the spread of the spring in the spring itself, but all provide for the elongation of the spring in some loose and insecure manner. [See patent exhibits, p. 567-603.]

GEORGE WASHINGTON COACH

Is nothing but the old thorough brace spring, composed of a

piece of steel, with a strap of leather under it and around the supports. [See stipulation, p. 485.]

RECAPITULATION.

FIRST—Timken Spring, then, is the result of an experiment and was very popular from the start; supplied a long felt want and supplanted to a great extent all other springs; so much so that twenty-two spring makers which were almost all the leading spring makers of the United States took out licenses to make the spring and paid two dollars a set for making the same. These licenses were executed all within the second year after patent was issued.

They all recognized the validity of the patent and none ever thought to dispute its novelty but the Defendants who were not spring makers or carriage makers.

SECOND—None of the Defendants uses set up antedate the Timken invention, but are all subsequent to it by from one year to eighteen months.

THIRD—And neither the patents nor George Washington Coach embody the Timken invention or come within gun shot of it.

It seems to us the judgment below ought to be affirmed.

WM. M. ECCLES,
Counsel for Appellee.

Supplemental Brief and Argument of Appellee.

There is no assignment of errors in this case, either in the record or in appellants' brief.

MASTER'S REPORT.

The master in finding that there had been a license fee established by the voluntary payment of $2.00 per set from 1879 to 1886, and $1.00 from that date on, by twenty-two spring-makers, amounting to over $800,000 and 400,000 sets, did use the evidence already taken in the case, the deposition of complainant, who was cross-examined by Mr. Murray, counsel for defendants, which counsel now complains of.

The master had a right to take the evidence already in the case in relation to a license fee. In fact, rule 80 authorizes him to use any affidavits, depositions, and documents which have been previously made, read, or used in the court upon any proceeding in any cause or matter (see rule 80).

The deposition of complainant was taken, and he testified fully on both direct and cross-examination that the license fee was $2.00 a set till 1886, and $1.00 a set since, and that this was uniform. This was paid by spring-makers. That which was paid for the privilege of making them determines the value of the patent. These manufacturers of springs made them and sold them to be used in the combination of the Timken patent.

These license fees or royalties were paid for the privilege of making the spring under the Timken patent and were commenced in 1879, several years before the reissue

of the Tilton patent, before the issue of the Sallade, and long before the transfers of the patents were made to Timken. The fact that he, many years after the royalties were well established, chose to give a bonus to purchasers of the spring of 25 cents, provided they used a certain number per year, does not affect the price put upon the invention by the spring-makers. As to proof of this established license fee see p. 403, QQ. 28–36; also 402, Q. 27; x-Q. 163, p. 435; also x-QQ. 164 and 165, p. 435; also A. 3, p. 436.

APPELLANTS CLAIM THAT COMPLAINANT SHOULD SHOW THAT THE ROYALTY WAS NOT PAID ON THE SPRINGS THEY SOLD BEFORE HE IS ENTITLED TO RECOVER.

This proposition is as astounding as it is novel. It has not been supported by a single authority in the brief.

It is a very novel proceeding for the defendants in this suit to spend several years and much money in litigating this suit; in taking evidence all over the country in an effort to defeat the patent which was earning this royalty, and after they were declared to have been guilty of infringing that patent to then claim for the first time that we must show that the springs which they sold had not had the royalty paid on them.

This, too, in the face of the evidence that Olin testifies all through his deposition that he had spring-makers manufacture Olin springs for him (pp. 507–508, 509, 510).

He paid for the manufacture of these springs from $2.00 per set to $3.25 in 1885, and from $1.90 to $2.35 for having these springs made for them in 1886. Prices in 1887 were about same as in 1886 (p. 511).

These springs were not bought from the spring-makers

but were manufactured for defendants as Olin Springs (pp. 507–510).

The prices at which Olin had his springs made and at which he sold them refutes the idea that the license was paid.

The evidence of Olin commencing with p. 530 and ending 532 shows that there was no royalty paid on the springs, and he knew it.

After Timken had notified the Forest Spring Co., of Cleveland, not to make any more Olin springs, he afterwards induced them to make them (p. 507).

There is no doubt but Olin knew the royalty was not paid on the springs, and the spring-makers were joint-infringers.

In all his conversations with Timken he never claimed that the Olin spring had had the royalty paid (p. 531). He did not so claim in his evidence and does not now, but induced spring-makers to believe that the Olin spring was not an infringement.

Here is a defendant in open hostility to the complainant inducing, as he says, the licensees of Timken to make his spring, not on the ground that the royalty was paid, but on the ground that the spring was not an infringement, and fortifying his belief with the opinion of three eminent patent attorneys—a firm that is underselling the complainant's spring and at same time contesting his patent and setting in his answer prior patents and uses to defeat it, and when all is over and he is declared an infringer he comes forward for the first time and claims, because he induced some of complainant's licensees to make a part of the infringing device, that he is to be released from damage. If it had been true that the springs which he induced these spring-makers to make for him in loose leaves had had the royalty paid, and he

had been acting as Timken's agent, why all this controversy? Why not have pleaded it and stopped this expensive litigation? Because there is not a word of it true, and no one knows it better than T. D. Olin.

We cannot be called upon to prove a negative. It is too late to claim such a defence after a finding by the master, even if it was a defence.

There were no witnesses called by complainant to the effect that nearly all the springs sold by defendants were purchased from complainant's licensees, as Mr. Murray says, but the defendants admit both by stipulation (p. 32) and T. D. Olin's evidence (pp. 503, 504) that they *manufactured* and sold the spring shown in cut of Carriage Monthly (see Rec., p. opposite p. 557).

No one has made cross spring connecting the body to side bars prior to the invention of Timken, Tilton, and Sladee.

The appellant on page 7, in his first point of his brief tries to make it appear that Timken, who invented his spring in fall of 1875, was trying to evade the Wood patent, together with all these parties set up in the answer and together with the defendants, when by reference to appellee's brief, pp. 9–16, it will appear that these parties were all subsequent to Timken, and all had access to his cuts and advertisements. "The defendants," he says, "may be considered in same boat." The defendants may be considered in the boat which was infringing the Timken patent and attempting to profit by its popularity, for they did not commence to manufacture till 1883, six years after the date of Timken patent (see Olin evidence, pp. 503, 504).

SECOND POINT OF APPELLANT—THE TILTON PATENT.

The Tilton patent has a metallic reinforcing plate I, and the patent says this reinforcing plate "has pendent flanges at its sides" (p. 562 of Rec., lines 1, 2, and 3 of last paragraph). Thus the springs are side by side and connected together exactly the same as the defendant's springs are by their crab. So, when Mr. Murray says in his brief "end flanges" he means side flanges at the ends of the reinforcing bar.

The words "connected together" in the third claim mean connected together by means of the reinforcing plate I, and not connected together by the pivot or axis-bolt. This is apparent from use of the words "hinged together at their crossing points" used in first claim, and the words "pivot or axis-bolt" used in second claim.

In appellant's brief, bottom of page 9, he makes the third claim read as though the springs were "connected together with side sills." This is done by not putting a comma after the word "together." This comma will be found in the claim of the patent, which will make the claim read: The combination of two springs, side by side and connected together, not provided with a "pivot or axis-bolt" as in second claim, or hinged as in first claim (see patent, p. 506), but side by side and "connected together," which is the first element, and "with side sills and cross-piece" are the other two elements. The defendant infringes the third by connecting them together by means of the reinforcing plate I, and the fourth claim by using all of the specified elements, including the reinforcing plate I.

But, no matter what the scope of the fifth claim is, it was added after the issue of the Timken patent, and after the licenses had been issued, and long after the trade had

recognized the validity of the Timken, and after a large amount royalty had been paid and the license fee well established.

Manton English Patent

Does not anticipate the Timken plant, as is argued, for it differs with it in every essential particular, both in construction and mode of operation.

The Manton has straight springs.

The Timken has double-sweep spring, springs that bend down and then up.

The Manton has no side bars, but attaches the outer ends of the springs by shackles to irons that are bolted to the top of the fore-transom, which irons turn up and have beads at the upper ends to suspend the shackles from.

The Timken has side bars and clip the ends of the springs directly to them. The side bay is one element of its claim.

The Manton takes up the spread of the spring by means of "shackles, loops, or links."

The Timken takes it up by the double sweep in the spring, by the turn in the end of the spring.

The Manton sets the body high of necessity, and could not use side bars because the swinging loops or shackles would allow the body to rub against the side bars, or they would have to be set apart so far from the same that they would be in the way of turning.

Finally, the Manton patent says that "in all cases the springs, being fixed fast at one end, must be suspended by a shackle at the other end to allow them play to expand or contract" (see R., p. 607, summary of patent or claim) (see Figs. 2, 3, 4 of Manton pat., p. 605, marked page 786).

Quite a different thing from what Mr. Murray would impress upon your minds by his unfair comparison of patents in his brief (p. 11).

Mr. Murray's Comparison of Timken and Manton Patents.

This comparison is unfair and tends to mislead.

First.

Because all of Fig. 3, which is Fig. 1 of the Manton patent, is not shown in the brief. It should have the axle situated below the springs. It should have the standards upon which the cross-bar rests. It should show the cross-bars and not leave them as in the Fig., to be inferred to be the ends of side bars, as are in Fig. 3 of the Timken patent, which is Fig. 1 of the brief.

Second.

It is unfair because it does not give all of the drawing of either patent, nor does it give all of the specification of Manton patent, but only a garbled portion of each.

Third.

It is unfair because it tends to mislead rather than get at the truth.

Fourth.

It is an unfair comparison because it leads the reader to think one of the objects of Manton was to set the body low, when there was no such thought in his mind, but on the contrary, his aim was to set it high.

FIFTH.

It also tends to make the reader think there were side bars to the Manton as well as the Timken.

The only fair way to compare patents is to take the two patents and compare the mechanical construction and functions of each part and result attained by their combination. It is the function which determines the part or combination.

MR. MURRAY MISQUOTES JUDGE SAGE ON PAGE 15 OF HIS BRIEF.

Beginning with second paragraph of page 15, Mr. Murray says:

"Judge Sage in his decision, on page 490, says that *this coach and the inventions shown in complainant's* patents are surprisingly alike in appearance, and a glance at complainant's patents, especially the Timken patent, or the Timken springs as made, ought to indicate to any one familiar with the state of the art twenty years ago that there could be no invention in producing the alleged inventions set forth in either one of complainant's patents, but he *finds* that the last clause in the stipulation is the key-note to the radical difference between the two."

Now, any one reading this would think the judge had said all these things. He did not, but what he did say is as follows:

"Without entering further into details, the last expression quoted above from the stipulation is the key-note to the radical difference between this coupling and the inventions covered by the complainant's patent. They are surprisingly alike in appearance, as shown by the photographs, but the coupling is nothing more than the old-fashioned thoroughbrace, long since out of use and discarded from

general use. The trouble with it is, or was, that it would not prevent the pitching of the seat upwards and sideways and endways. The complainant's inventions do prevent that very thing, and that, too, more effectually than anything which preceded them. They have been for many years recognized as valuable and patentable inventions by practically the entire body of carriage-makers in the United States, who have paid in royalties to the complainant for the use of these inventions more than $800,000. What better confirmation is needed of the proposition that there is something more than skill or mere adaptation in the complainant's improvement?" (See P. R., 490, 2d paragraph.)

This is the exact language of his honor Judge Sage on that occasion, when he delivered his final opinion, and we consider it a most fitting close for this argument, which is most respectfully submitted.

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